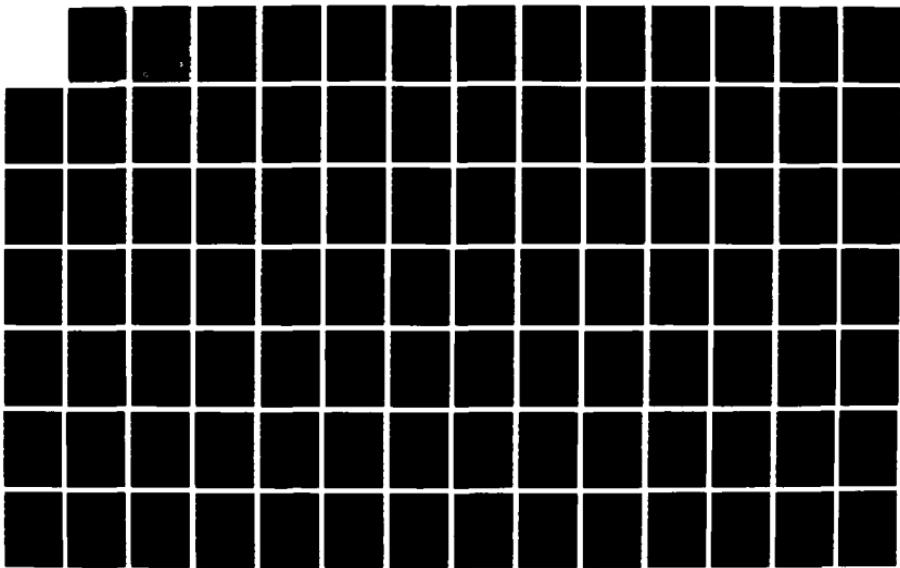
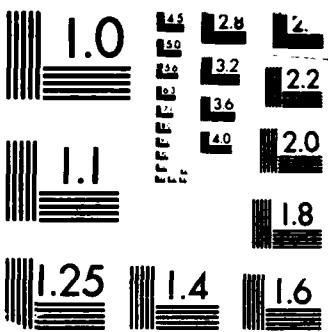


AD-A194 125 USER'S MANUAL AND ANALYSIS PROCEDURES FOR THE MATERIAL 1/2
HANDLING EQUIPMENT SIMULATION MODELS(U) DAVID TAYLOR
RESEARCH CENTER BETHESDA MD P E FRIEDENBERG ET AL.
UNCLASSIFIED MAR 88 DTIC-88/008 F/G 15/5 NL





MICROCOPY RESOLUTION TEST CHART
IREAU STANDARDS-1963-A

DTRC

FILE COPY

(4)

David Taylor Research Center

Bethesda, MD 20084-5000

125

AD-A194

DTRC-88/008 March 1988

Computation, Mathematics and Logistics Department
Research and Development Report

User's Manual and Analysis Procedures for the Material Handling Equipment Simulation Models

by

Paul E. Friedenberg

James C. Chesley

Benjamin Siegel

DTRC-88/008 User's Manual and Analysis Procedures for the Material Handling Equipment

Simulation Models



DTIC
ELECTE
APR 20 1988
S E D
M

Approved for public release; distribution is unlimited.

88 4 20 001

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS			
2a SECURITY CLASSIFICATION AUTHORITY		3 DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.			
2b DECLASSIFICATION/DOWNGRADING SCHEDULE					
4 PERFORMING ORGANIZATION REPORT NUMBER(S) DTRC-88/008		5 MONITORING ORGANIZATION REPORT NUMBER(S)			
6a NAME OF PERFORMING ORGANIZATION David Taylor Research Center	6b OFFICE SYMBOL (If applicable) Code 1872	7a. NAME OF MONITORING ORGANIZATION Naval Supply Systems Command (NAVSUP 0622)			
6c ADDRESS (City, State, and ZIP Code) Bethesda, Maryland 20084-5000		7b. ADDRESS (City, State, and ZIP Code) Arlington, Virginia 22201			
8a NAME OF FUNDING/SPONSORING ORGANIZATION Naval Supply Systems Command	8b. OFFICE SYMBOL (If applicable) NAVSUP 0622	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER			
8c ADDRESS (City, State, and ZIP Code) Arlington, Virginia 22201		10 SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO. 62233N	PROJECT NO.	TASK NO. RM33A60	WORK UNIT ACCESSION NO. DN506003
11 TITLE (Include Security Classification) User's Manual and Analysis Procedures for the Material Handling Equipment Simulation Models					
12 PERSONAL AUTHOR(S) Friedenberg, Paul E., James C. Chesley, and Benjamin Siegel					
13a TYPE OF REPORT Final	13b TIME COVERED FROM 84/10 TO 87/06	14. DATE OF REPORT (Year, Month, Day) 1988 March		15 PAGE COUNT 134	
16 SUPPLEMENTARY NOTATION <i>Simulation</i>					
17 COSATI CODES		18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) Simulation Storage Heavy bulky Weapons material receiving Main supply Issuing On-station Hot cargo area/office Receiving Pallets Off-station (Continued on reverse side)			
19 ABSTRACT (Continue on reverse if necessary and identify by block number) The three computer models described in this user's manual simulate the use of material handling equipment (MHE) at three distinct types of U.S. Navy installations (Main Supply, Ship Overhaul, and Weapons Supply). Input consists of data describing operational characteristics of the MHE, materials delivery data for cargo arrivals, and issue document specifications. Model output is composed of computer generated data describing MHE utilization and throughput data which tabulates the movement of cargo within this system as a function of time. The model output is designed to assist an analyst in the determination of specific MHE utilization requirements for any given U.S. Navy installation. An analysis of sample simulation run results is also included in this report. <i>Forklifts; cranes; straddlers; pallets;</i> <i>straddle trucks).</i>					
20 DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS		21 ABSTRACT SECURITY CLASSIFICATION Unclassified			
22a NAME OF RESPONSIBLE INDIVIDUAL Paul E. Friedenberg		22b TELEPHONE (Include Area Code) (202) 227-1291		22c OFFICE SYMBOL Code 1872	

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

(Block 18, continued)

Inert
Forklifts
Cranes
Prearrival staging

Equipment utilization
Throughput data
Live explosive
Bomb buildup area

Weapons assembly
Sideloading
Straddle trucks
Ripout

Input parameters
Ship overhaul support

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

CONTENTS

	Page
Terms and Abbreviations	vi
Abstract	1
Administrative Information	1
1. Introduction	1
2. Overview of the Simulation Models	2
2.1 Main Supply Simulation Model	2
2.1.1 Receiving	2
2.1.2 Storage	4
2.1.3 Issuing	4
2.1.3.1 Pallets	4
2.1.3.2 Heavy Bulky for Off-Station	4
2.1.3.3 Heavy Bulky for On-Station	5
2.1.4 Packing and Shipping	5
2.2 Weapons Supply Simulation Model	5
2.2.1 Receiving	5
2.2.1.1 Weapons Material Receiving	5
2.2.1.2 Hot Cargo Area/Office	7
2.2.2 Issuing	7
2.2.2.1 Inert Bulk for Off-Station	7
2.2.2.2 Live Explosive Bulk for Off-Station	7
2.2.2.3 Inert Material for Weapons Assembly	7
2.2.2.4 Live Explosives for Weapons Assembly	7
2.2.3 Delivery of Consolidated Weapons	8
2.2.3.1 Delivery to On-Station Users	8
2.2.3.2 Delivery to Off-Station Users	8
2.3 Ship Overhaul Simulation Model	8
2.3.1 Prearrival Staging	8
2.3.2 Ship Arrival	9
2.3.3 Ripout	9
2.3.4 Repair Shops	9
2.4 Assumptions	9
3. How to Run the Models	11
3.1 Login Procedure	11
3.2 Model Execution	12
3.3 Use of Other Computer Systems	13
4. How to Change the Input Data	13
4.1 Quantities of Material Handling Equipment	13

CONTENTS (Continued)

	Page
4.2 Characteristics of System Operations	13
4.3 Matrix Data	14
4.4 Cataloging and Purging of Files	15
4.4.1 Cataloging of New Files.....	15
4.4.2 Purging of Old Files	15
5. Explanation of Outputs	16
5.1 MHE Equipment Used	16
5.2 MHE Equipment Utilization	16
5.3 Single Valued Input Parameters	16
5.4 Matrix Input Data	17
5.5 Throughput Data	17
6. Screen Viewing and Editing of Output	17
6.1 Screen Viewing of Output	17
6.2 Editing of Output	18
7. MHE Analysis	19
7.1 Objective	19
7.2 Approach	19
7.3 Data Sources	20
7.4 Formats	20
7.5 Analysis	25
7.6 Results	25
7.6.1 Decreased MHE Availability	25
7.6.1.1 Non-Community	25
7.6.1.2 Community	25
7.6.1.3 Non-community vs. Community Comparisons	26
7.6.2 Increased Material Inputs	26
7.6.2.1 Non-community	27
7.6.2.2 Community	27
7.6.2.3 Non-community vs. Community Comparisons	27
Appendix A. Main Supply Model Sample Run	29
Appendix B. Weapons Supply Model Sample Run	45
Appendix C. Ship Overhaul Model Sample Run	81
Appendix D. NETEDF	97

FIGURES

	Page
1. NSC (Charleston) material handling system functional flow	3
2. NAS (Pensacola) material handling system functional flow.....	6
3. NNSY material handling system functional flow	10

TABLES

A.1 Non-community MHE adjustments.....	21
A.2 Community MHE adjustments	22
B.1 Non-community material adjustments	23
B.2 Community material adjustments	23

<i>Accession For</i>	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification _____	
By _____	
Distribution/ _____	
Availability Codes	
Dist	Avail and/or Special
<i>A-1</i>	



TERMS AND ABBREVIATIONS

Availability	A measure of the degree to which an item of MHE is in an operable and committable state at the start of a mission when the mission is called for at either an unknown (unscheduled) or known (scheduled) time
BDU	Bomb Dummy Unit
Bomb Buildup Area	The location at which weapons are assembled from their component parts
CIP	Capital Improvement Productivity
CNO	Chief of Naval Operations
Community	Material handling equipment which is shared by two or more different functional areas
CONUS	Continental United States
CM (Corrective Maintenance)	The actions performed to restore an item of MHE to a specified condition after failure
DLSIE	Defense Logistics Studies Information Exchange
Down Time	Time during which material handling equipment is unavailable for use due to maintenance and/or repair requirements
DTRC	David Taylor Research Center
DTO	Direct Turnover
Elongated	Extended length heavy bulky material (such as piping)
FMO	Facilities Management Office
GAO	General Accounting Office
GBL	Government Bill of Lading
Inert	Non-explosive cargo/material handled by the material handling equipment within the Weapons Supply model

TERMS AND ABBREVIATIONS (Continued)

L&E	Labor and Equipment
Live Explosive	Explosive cargo/material handled by the material handling equipment within the Weapons Supply model
MHE	Material Handling Equipment
MHE Availability	A measure of the time during which a piece of MHE is in an operable state at the start of a mission
MHE Performance	A measure of the capability of MHE to execute and complete appointed duties or tasks
MHE Utilization	A measure of the extent to which a piece of MHE is employed in performing a task during its time of availability
MOEs	Measures of Effectiveness
MTIS	Material Turn Into Store
NARF	Naval Air Rework Facility
NAF	Naval Air Station
NAVSUP	Naval Supply Systems Command
NDW	Naval District Washington
NIF	Navy Industrial Fund
NNSY	Norfolk Naval Shipyard
Non-community	Material handling equipment which is dedicated to one specific functional area only
Non-elongated	Heavy bulky material which is not elongated
NSN	Navy Stock Number
NS	Naval Station
OSD	Over Short and Damage

TERMS AND ABBREVIATIONS (Continued)

Personal Fatigue Factor	Time during which no material handling functions are performed due to fatigue on the part of the equipment operators
PM (Preventive Maintenance)	The care and servicing by personnel for the purpose of maintaining system/equipment safety and reliability levels through systematic inspection, detection, lubrication, cleaning, etc.
PW or PWD	Public Works or Public Works Department
PWRMS	Pre-Positioned Ware Reserve Material Stock
Ripout	Material which has been removed from a ship for repair
Scheduled Maintenance	Periodic prescribed inspection and/or servicing of equipment accomplished on a calendar, mileage, or hours of operation basis
SPCC	Ships Parts Control Center

ABSTRACT

The three computer models described in this user's manual simulate the use of material handling equipment (MHE) at three distinct types of U.S. Navy installations (Main Supply, Ship Overhaul, and Weapons Supply). Input consists of data describing operational characteristics of the MHE, material delivery data for cargo arrivals, and issue document specifications.

Model output is composed of computer generated data describing MHE utilization and throughput data which tabulates the movement of cargo within this system as a function of time. The model output is designed to assist an analyst in the determination of specific MHE utilization requirements for any given U.S. Navy installation.

An analysis of sample simulation run results is also included in the report.

ADMINISTRATIVE INFORMATION

This work was authorized and funded by the Naval Supply Systems Command (NAVSUP 0622). The project was internally controlled under David Taylor Research Center (DTRC) Program Element 62233N, Task Area RM33A60, and Work Unit 1870-721.

1. INTRODUCTION

The Logistics Division (Code 187) of the David Taylor Research Center (DTRC), under the funding and direction of the Naval Supply Systems Command (Code 0622), has developed a set of three computer simulation models. These models were developed to simulate the operations and procedures employed in material handling and processing at each of three types of U.S. Navy installations, particularly in the utilization of material handling equipment (MHE). By exercising the models an analyst can determine the most effective use of MHE to be assigned to any particular installation.

Separate sections of this report show an MHE manager/user how to run the simulation models and how to interpret the output. Appendixes A, B, and C contain the input and output for one sample run of each model.

The models are written in the General Purpose Simulation System (GPSS) language and are presently operational on the CDC Cyber computer system at DTRC. GPSS was the language of choice for the coding of these models because its features are directly applicable to discrete stochastic modeling, as called for in this case.

The simulation models described in this report are not optimization models. An optimization model calculates for the user the optimal (best) solution to the problem; such a model is mathematical and not a simulation.

An analysis of sample simulation run results is also included in this report. The objective of this analysis is to offer the MHE system manager/user, without

2. OVERVIEW OF THE SIMULATION MODELS

This section provides a brief overview of each of the three simulation models. The MHE considered in these models includes the following types:

- container handlers
- 4K forklifts
- 6K forklifts
- heavy forklifts (equal to or greater than 10K)
- 4K cranes
- 6K cranes
- heavy cranes (equal to or greater than 10K)
- 4K sideloaders
- 30K sideloaders
- straddle trucks

The material handling operations and procedures underlying the defining logic for the models are further described by Chesley and Siegel.*

2.1 MAIN SUPPLY SIMULATION MODEL

The Main Supply simulation model depicts all cargo handling operations and procedures involving material handling equipment (MHE) at a general supply activity, such as the Naval Supply Center at Charleston, South Carolina. Figure 1 shows the names and relationships of representative MHE Main Supply activity processes (as described by Chesley and Siegel).*

The simulation logic describes the arrival of cargo from off base, the unloading of the cargo from the transporting vehicle, and the subsequent movement of the cargo to various destinations. It also describes the issuing of cargo (via issue documents) and the subsequent movement of the cargo through the system to the designated on-base or off-base recipients. Cargo originating from tenants to be packaged and shipped to off-base recipients is also included.

All 4k and 6k forklifts utilized in this model may be assigned by function or may be shared by different functions. Forklifts shared by two or more functions are termed community forklifts.

Factors representing equipment down time and personal fatigue time are included in this model.

2.1.1 *Receiving*

Trucks arrive at Receiving throughout each day carrying specified types and amounts of cargo. Trucks carrying cargo types "food and food only" and "bulky and only bulky, including hazardous" are routed directly to the warehouse. All other cargo, consisting of light bulky/boxes (in the form of pallets), is unloaded from the trucks at Receiving by forklifts and moved to Temporary Location. Pallets designated for storage are then moved again by forklifts to Temporary Staging (Receiving) or to the warehouse via an automated system.

* Chesley, James C. and Benjamin Siegel, "Material Handling Equipment Allowance, Maintenance, and Management Methodology Project: Task 1 — Descriptions of Required Material Handling Processes," DTNSRDC Report 85/084 (Jan 1986).

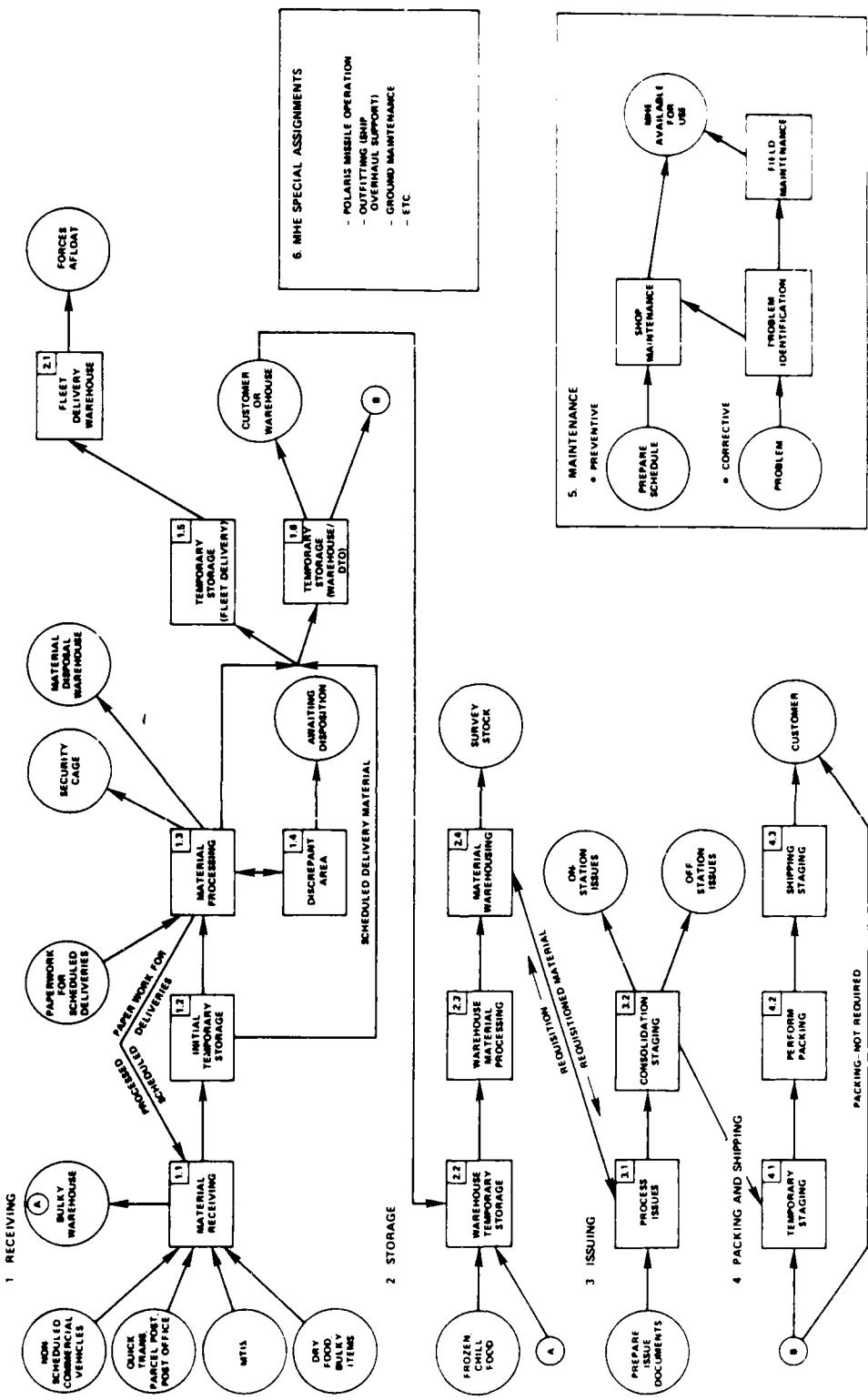


Fig. 1. NSC (Charleston) material handling system functional flow.

Pallets designated for transshipment are moved by forklifts from Temporary Staging (Receiving) to Temporary Staging (Packing and Shipping).

Pallets designated for Direct Turnover (DTO) are moved directly from Temporary Staging (Receiving) to DTO by flatbed trucks or straddle trucks.

Pallets designated for storage are moved from Temporary Staging (Receiving) to warehouse Temporary Storage by flatbed trucks or straddle trucks.

2.1.2 *Storage*

Non-food pallets designated for storage arrive at warehouse Temporary Storage via straddle trucks or flatbed trucks. Forklifts are then utilized to move the pallets from warehouse Temporary Storage to Material Warehousing (storage in bins).

After appropriate paperwork is implemented, trucks carrying "food and food only" pallets are routed from Receiving directly to warehouse Temporary Storage, where the cargo is offloaded by forklifts and moved to Material Warehousing.

Similarly, trucks carrying heavy bulky items arrive at warehouse Temporary Storage after being directly routed there from Receiving. If the heavy bulky cargo is "elongated to go into warehouse," it is unloaded by a crane and moved to Material Warehousing by a sideloader. If the heavy bulky cargo is "non-elongated to go into warehouse," it is unloaded by a crane and moved to Material Warehousing by a heavy forklift. If the heavy bulky cargo is to be stored outside the warehouse, it is unloaded with a crane and deposited directly at the appropriate storage location.

2.1.3 *Issuing*

The issuing of material is initiated by the arrival of an issue document at the warehouse. An issue document specifies the type, amount, and destination of material to be released from the warehouse.

2.1.3.1 *Pallets.* If the issue material is in the form of pallets, the pallets are moved from Material Warehousing to Consolidation Staging (Issuing) by either forklifts or an automated system (if available). The pallets are then moved from Consolidation Staging (Issuing) to Temporary Staging (Packing and Shipping) via flatbed trucks or straddle trucks.

2.1.3.2 *Heavy Bulky for Off-Station.* If the material to be issued is "elongated to be removed from within the warehouse," a sideloader is used to move the cargo from Material Warehousing to Consolidation Staging (outside warehouse), where it is then packed and packaged. A crane is then utilized to load the cargo onto the customer trucks.

If the material to be issued is "non-elongated to be removed from within the warehouse," a heavy forklift is used to move it from Material Warehousing to Consolidation Staging (outside warehouse), where it is then packed and packaged. A crane is then utilized to load the cargo onto the customer trucks.

If the material (elongated or non-elongated) to be issued is currently stored outside the warehouse, it is packed and packaged and then loaded by a crane onto the customer trucks.

2.1.3.3 Heavy Bulky for On-Station. If the material to be issued is "elongated to be removed from within the warehouse," a sideloader is used to move the cargo from Material Warehousing to Consolidation Staging (outside warehouse). A crane is then used to load the cargo onto trucks for the on-station user.

If the cargo to be issued is "non-elongated to be removed from within the warehouse," a heavy forklift is used to move it from Material Warehousing to Consolidation Staging (outside warehouse). A crane is then used to load the cargo onto trucks for the on-station user.

If the material to be issued is currently stored outside the warehouse, it is loaded by a crane onto trucks for the on-station user.

2.1.4 Packing and Shipping

Trucks carrying palletized cargo arrive at Packing and Shipping from both tenants and warehousing (issued material). The pallets are unloaded from the trucks by forklifts and moved to temporary staging (Packing and Shipping). The pallets are next moved by forklifts from Temporary Staging (Packing and Shipping) to Packing and Packaging (Packing and Shipping). The pallets are then packed and packaged and moved by forklifts from Packing and Packaging (Packing and Shipping) to Shipping Staging (Packing and Shipping). Pallets destined for off-station users are loaded onto trucks by forklifts. Pallets destined for on-station users may be loaded by forklifts onto trucks for delivery or may be delivered by straddle trucks (which require forklifts to line up the pallets prior to pickup).

2.2 WEAPONS SUPPLY SIMULATION MODEL

The Weapons Supply simulation model depicts the arrival at a Weapons Department of incoming shipments of cargo (inert and/or live explosive) and the subsequent movement and storage of such cargo within the system. The model also describes the issuing of material required for Weapons Consolidation, the process of weapons buildup, and the delivery of these weapons to on-base or off-base users. The Naval Air Station at Cecil Field, Florida, is an example of an activity whose Weapons Department may be simulated by this model. Figure 2 shows the names and relationships of representative MHE Weapons Supply activity processes (as described by Chesley and Siegel.)

Factors representing equipment down time and personal fatigue time are included in the Weapons Supply simulation model.

All types of MHE utilized in this model are assigned by function only (except straddle trucks).

2.2.1 Receiving

2.2.1.1 Weapons Material Receiving. All incoming inert material is delivered by trucks at Weapons Material Receiving. The trucks arrive throughout each day carrying the user-specified types and amounts of cargo. Forkliftable cargo is offloaded with the use of forklifts. Forkliftable cargo to be stored inside the warehouse will then be moved there via forklift. Non-forkliftable cargo is offloaded with a crane. Non-forkliftable cargo to be stored inside the warehouse will then be moved there by a sideloader.

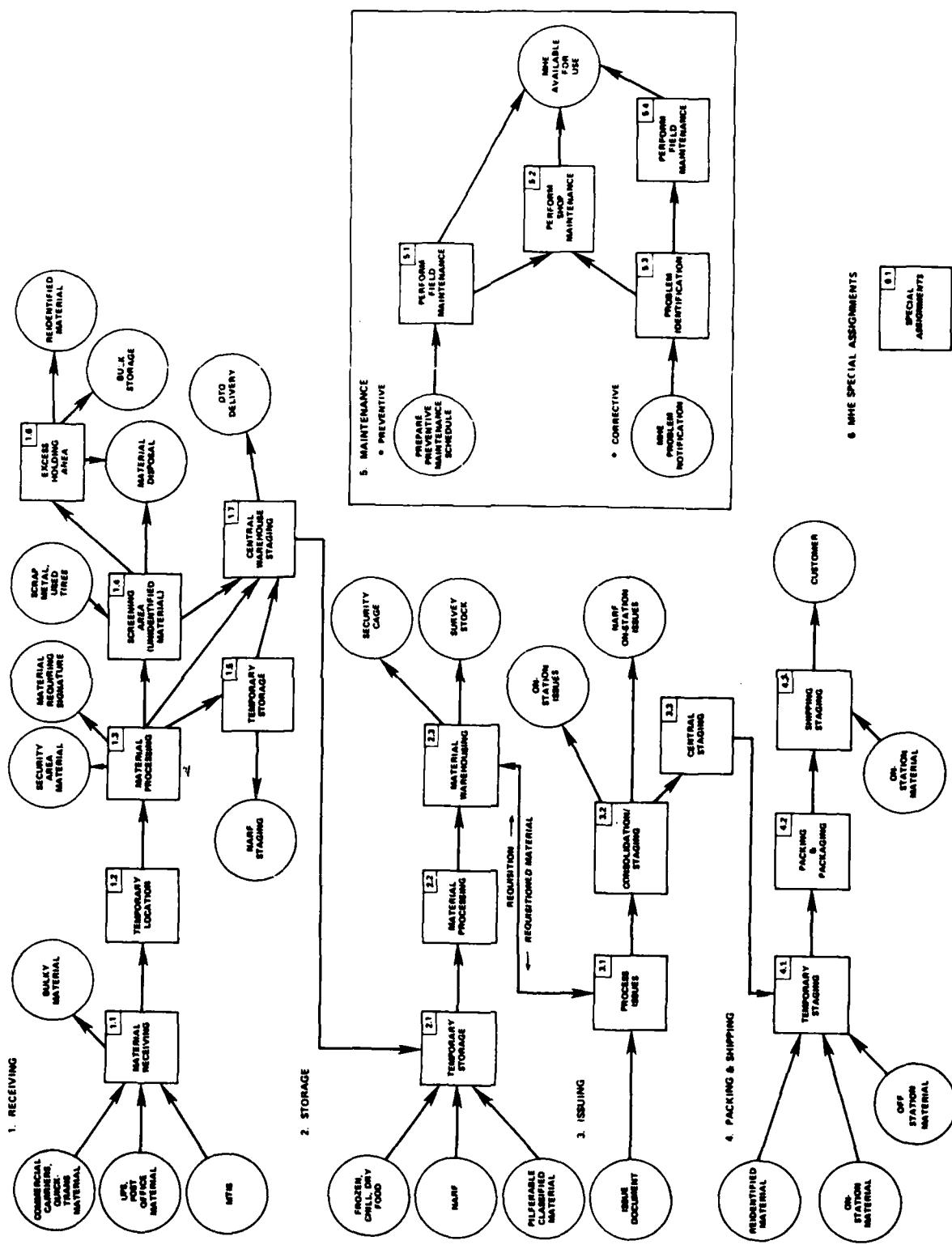


Fig. 2. NAS (Pensacola) material handling system functional flow.

2.2.1.2 Hot Cargo Area/Office. All incoming live explosive material is delivered by trucks at the Hot Cargo Area/Office. Forkliftable loads are offloaded with the use of forklifts (acquired from Weapons Material Receiving location) and loaded onto a different truck for transit, along with a forklift, to the magazine area. Upon arrival at the magazine area the forklift offloads the forkliftable loads and stores them in the magazines. Non-forkliftable cargo is offloaded by a crane, moved by a sideloader to the magazine area, and stored inside the magazines.

2.2.2 Issuing

2.2.2.1 Inert Bulk for Off-Station. Issue documents specifying bulk material (palletized) destined for off-station users arrive at the Inert Office (Inert Warehouse) at the user-specified times.

If the Inert Warehouse is adjacent to Packing and Shipping, the specified pallets are moved by forklifts to Temporary Staging (Packing and Shipping Area). They are then packed and packaged and loaded by forklifts onto trucks.

If the Inert Warehouse is not adjacent to Packing and Shipping, the specified pallets are moved by forklifts to Temporary Staging (Inert Warehouse). They are then loaded by forklifts onto trucks and taken to Packing and Shipping (Weapons Assembly Area). The pallets are then offloaded from the trucks by forklifts, packed and packaged, and loaded onto trucks by forklifts for transit to the off-station user.

2.2.2.2 Live Explosive Bulk for Off-Station. Issue documents specifying live explosive bulk material (palletized) destined for off-station users arrive at the Hot Cargo Area/Office at the user-specified times. A forklift is sent (from Weapons Material Receiving location) to the magazine area where it moves the pallets from the magazine to Temporary Staging (at magazine). The forklift loads the pallets onto a truck for transit to Packing and Shipping (adjacent to Weapons Assembly Area). The truck and the forklift transit to Packing and Shipping. The forklift then unloads the truck. The pallets are packed and packaged and loaded onto trucks for delivery to the off-station user.

2.2.2.3 Inert Material for Weapons Assembly. Issue documents specifying inert material to be used in the weapons assembly process arrive at the Inert Weapons Warehouse. If the specified loads are forkliftable, they are moved to the Bomb Buildup Area by either a truck or a straddle truck. Forklifts are utilized in loading and unloading the truck and in lining up the pallets for the straddle truck. Non-forkliftable loads are moved to the Bomb Buildup Area by a sideloader.

2.2.2.4 Live Explosives for Weapons Assembly. Issue documents specifying live explosives to be used in the weapons assembly process arrive at the Hot Cargo Area/Office.

If the specified material is forkliftable, a truck and forklift are sent to the magazines (from Weapons Material Receiving location) and the pallets are loaded onto the truck. The truck and forklift next transit to the Bomb Buildup Area

where the pallets are unloaded from the truck. The truck and forklift then return to Inert Receiving.

If the specified material is non-forkliftable, a sideloader is sent from the Hot Cargo Area to the magazines to move the material from the magazines to the Bomb Buildup Area.

2.2.3 *Delivery of Consolidated Weapons*

After assembly at the Bomb Buildup Area the consolidated weapons are delivered to the specified on-station or off-station users.

2.2.3.1 *Delivery to On-Station Users.* Forkliftable weapons are delivered to on-station users via truck or straddle truck. For truck deliveries the weapons are loaded onto the truck by a forklift. For straddle truck deliveries, a forklift is used to line up the pallets for the straddle truck.

Non-forkliftable weapons are delivered to on-station users via truck or sideloader. For truck deliveries a crane is used to load the weapons onto a truck.

2.2.3.2 *Delivery to Off-Station Users.* Forkliftable weapons are moved by forklift to Packing and Shipping, where they are packed and packaged, then loaded onto trucks.

Non-forkliftable weapons are moved by sideloader to Packing and Shipping, where they are packed and packaged, then loaded by crane onto trucks.

2.3 SHIP OVERHAUL SIMULATION MODEL

The Ship Overhaul simulation model depicts the use of MHE in support of the overhaul of a ship at a naval shipyard. The processes supported by MHE include the cutting of holes in the ship hull, the offloading from the ship of all material needing rework/replacement, the movement of the material to the appropriate repair shops, the accomplishment of the required parts overhaul. Emphasis is placed on the usage of MHE throughout these processes; therefore all pertinent MHE statistics are compiled and printed out. The Norfolk Naval Shipyard at Portsmouth, Virginia, is an example of a shipyard whose activities may be simulated by this model. Figure 3 shows the names and relationships of representative MHE Ship Overhaul activity processes (as described by Chesley and Siegel.)

Factors representing equipment down time and personal fatigue time are included in the Ship Overhaul simulation model.

2.3.1 *Prearrival Staging*

Ship prearrival times are specified by the user. Prior to each ship's arrival (prearrival) there will be a staging of Temporary Services near the pier. The Temporary Services palletized loads to be staged near the pier will be transferred by forklift. If there are heavy bulky loads to be staged, they will be loaded by a crane onto a truck. The truck will then transit to near the pier where the heavy bulky items are unloaded from the truck by crane.

The Temporary Services are next staged onto the pier. Palletized loads are transferred by forklift from near the pier onto the pier. Heavy bulky loads are moved by crane from near the pier onto the pier.

2.3.2 *Ship Arrival*

Upon ship arrival the Temporary Services must be connected to the ship. All Temporary Services material contained in the palletized loads is connected to the ship with the support of forklifts. Similarly, all Temporary Services heavy bulky loads are connected to the ship with the support of a crane.

2.3.3 *Ripout*

After connection of the Temporary Services, ripout is performed to remove from the ship the material to be sent to the repair shops. All ripout material from the upper deck is transferred by a crane to the pier (Temporary Location).

It is often necessary to cut holes in the ship hull prior to the removal of ripout material from the lower deck. Forklifts are generally utilized as working platforms in support of this operation, transferring palletized ripout material from the lower deck to the pier (Temporary Location). Heavy bulky ripout items are transferred from the lower deck to the pier (Temporary Location) with the support of a crane.

All palletized ripout items are next transferred from Temporary Location (pier) to Temporary Staging (pier) by forklifts. Pallets less than or equal to 6,000 pounds are then moved by forklifts from Temporary Staging (pier) to inside the repair shops. Pallets greater than 6,000 pounds may either be moved from Temporary Staging (pier) to inside the repair shops by heavy forklifts or be loaded by heavy forklifts onto flatbed trucks for transfer to a deposit point outside the repair shops. They are then moved by heavy forklifts to inside the repair shops. Straddle trucks may also be used in moving pallets from Temporary Staging (pier) to a deposit point outside the repair shops.

Heavy bulky ripout items at Temporary Location (pier) are loaded by crane onto flatbed trucks and transferred to delivery points outside the repair shops. They are unloaded there with a crane. Elongated heavy bulky ripout items are moved from outside to inside the repair shops with a sideloader. Non-elongated heavy bulky ripout items are moved from outside to inside the repair shops with a heavy forklift.

2.3.4 *Repair Shops*

Repair work on ripout items is accomplished at the repair shops with the support (utilization) of the various types of MHE equipment. Forklifts are utilized in the repair of palletized ripout items. Sideloaders and cranes are utilized in the repair of heavy bulky elongated ripout items. Heavy forklifts are utilized in the repair of heavy bulky non-elongated ripout items.

2.4 ASSUMPTIONS

The following assumptions were made during development of the three MHE simulation models:

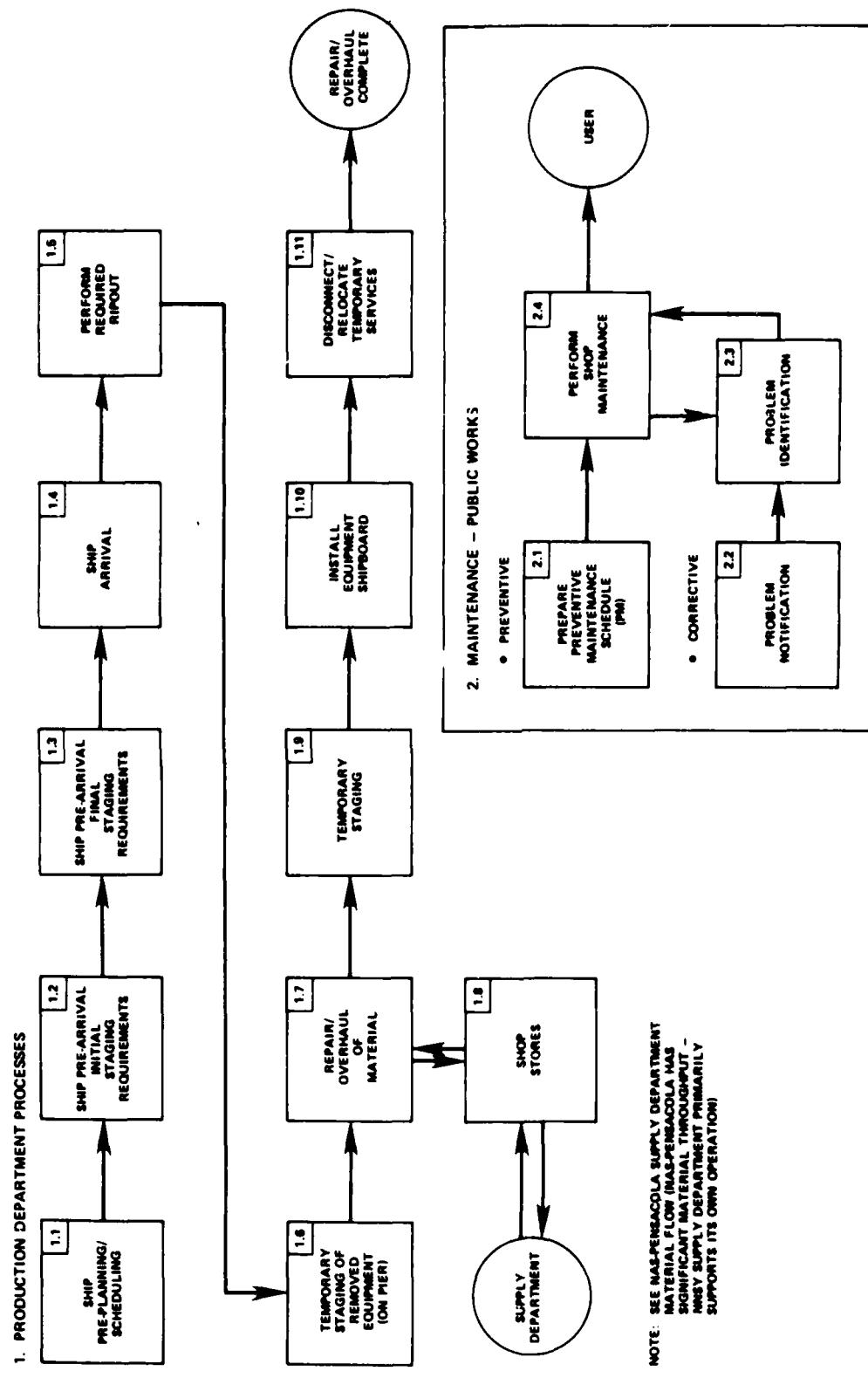


Fig. 3. NNSY material handling system functional flow.

1. Each forklift can carry one and only one pallet at a time.
2. Each crane can move one and only one heavy bulky item at a time.
3. Each sideloader can transport one and only one heavy bulky item at a time.
4. Each heavy forklift can carry one and only one heavy bulky load (to be warehoused) at a time.
5. The length of a working day is eight hours. This value may be changed by the user.
6. All MHE is unavailable for use for a portion of each working day due to equipment down time and personal fatigue factors. The MHE unavailability is different for each model. For the Main Supply model, the MHE is unavailable for 2 hours of each day. For the Weapons Supply model, the MHE is unavailable for 96 minutes of each day. For the Ship Overhaul model, the straddle trucks and the forklifts at the pier area are unavailable for 163 minutes of each day; the MHE at the repair shops is unavailable for 203 minutes of each day; and the large crane at the pier area is unavailable for 72 minutes of each day. These values may be changed by the user.
7. Flatbed trucks are always available.
8. All models are based on the central warehouse with one average distance between the warehouse and the Receiving and Packing and Shipping functional locations on the base.
9. The Ship Overhaul model considers only the ripout and repair phases of the overhaul procedure and not the reinstallation of the repaired parts into the ship. Statistics for the overall operation may be obtained by doubling the output data from the model run.

3. HOW TO RUN THE MODELS

The Main Supply computer simulation model, the Weapons Supply simulation model, and the Ship Overhaul simulation model are all currently resident on the mass storage device of the CDC Cyber computer system at DTRC. The models are run interactively through a VT100-compatible tabletop terminal. Small letters and capital letters are interchangeable in communicating with the CDC Cyber.

3.1 LOGIN PROCEDURE

The user first dials the number 73000 (for on-base users) or (202) 227-3000 (for commercial off-base users) to access the Cyber. Then the user executes the login procedure:

login,LOGINID,sup	<return>
ACCESS NUMBER	<return>
TURNKEY PASSWORD	<return>

The LOGINID and ACCESS NUMBER are provided to the user by the designated personnel of the Computations, Mathematics and Logistics Department (CMLD) at DTRC. The TURNKEY PASSWORD is supplied by the user.

An example of the login procedure might be

login,cabrpaulbr,sup	<return>
amrts18743	<return>
gasline	<return>

where "cabrpaulbr" is the LOGINID, "amrts18743" is the ACCESS NUMBER, and "gasline" is the TURNKEY PASSWORD.

3.2 MODEL EXECUTION

When the login procedure is complete, the user executes the command sequence required for the actual execution of the simulation model:

attach, gpss	<return>
attach, netedf	<return>
attach,aaa,MODELNAME,id=USERID	<return>
netedf,aaa	<return>
USER SUPPLIED DATA CHANGES	
save,bbb	<return>
gpss,i=bbb,fx	<return>
route,output,dc = pr,tid = c,fid = *USERID	<return>
logout	<return>

In this instruction sequence the MODELNAME is selected by the user and will be KMHEXX for the Main Supply simulation model; KWPNXX for the Weapons Supply simulation model; and KSPOXX for the Ship Overhaul simulation model. The output from the run may be subsequently retrieved from the Dispatch Office at CMLD. A minor modification of the "route" instruction enables the user to print the output at his own installation.

An example of the model execution sequence might be:

attach,gpss	<return>
attach,netedf	<return>
attach,aaa,kmhhexx,id=cabr	<return>
netedf,aaa	<return>
1 flba s	<return>
c/16/20/	<return>
save bbb	<return>
gpss,i=bbb,fx	<return>
route,output,dc = pr,tid = c,fid = *cabr	<return>
logout	<return>

where "kmhexx" is the MODELNAME, and "cabr" is the USERID. The two instructions "1 flba s" and "c/16/20/" make up the USER SUPPLIED DATA CHANGES and are explained in Section 4.

3.3 USE OF OTHER COMPUTER SYSTEMS

If any of the simulation models are run on a system other than the CYBER, the procedure for the actual running of the models (i.e., the instruction sequence) will differ significantly from that just described.

4. HOW TO CHANGE THE INPUT DATA

To adjust the values of one run of any given model from another run of the same model, the input data to the model must be changed from run to run. The text editor, NETEDF, is used for this purpose. (A complete description of NETEDF is given in Appendix D). Inputs and outputs for sample runs of the three simulation models are given in Appendixes A, B and C.

NETEDF is unique to the CYBER system. If any of these three MHE simulation models are to be run on a different computer system, a different text editor will be used, and the procedures for its use will be different from those described for NETEDF.

4.1 QUANTITIES OF MATERIAL HANDLING EQUIPMENT

The definitions of the MHE equipment are found in cards 19-52 of the Main Supply model, cards 12-46 of the Weapons Supply model, and cards 4-18 of the Ship Overhaul model. (A card number is equivalent to a line number in the coding.) The number of each type of MHE equipment begins in column 19 and is left adjusted. To change this number, substitute the following instruction for the phrase USER SUPPLIED DATA CHANGES in the instruction sequence of Section 3.2:

c/(old number)/(new number)/ <return>

The line of coding to be altered must first be accessed. For example, if the user wishes to change the number of Group 21 forklifts (card 34) in the Main Supply model from 16 to 20, the following sequence of instructions would be used:

1 flba s <return>
c/16/20/ <return>

The first instruction (1 flba s) locates the first occurrence of the unique string "flba s".

4.2 CHARACTERISTICS OF SYSTEM OPERATIONS

Cards 61-268 of the Main Supply model, cards 57-246 of the Weapons Supply model, and cards 25-154 of the Ship Overhaul model contain data describing the characteristics of system operations, such as the time required for a forklift to offload a pallet from a truck, the maximum number of pallets a

straddle truck can carry, etc. These values are changed in the same manner as the values defining the numbers of MHE equipment.

4.3 MATRIX DATA

The data supplied for matrices TBLA and TBLB for each of the models describe cargo deliveries (schedules, types, amounts) and issue documents (arrival times, types and amounts of material to be issued). The Weapons Supply model also contains the MWPN data matrix, which contains data relevant to the consolidation of weapons at the Bomb Buildup Area. The definitions for TBLA and TBLB data are found in cards 272-409 of the Main Supply model and cards 158-187 of the Ship Overhaul model. The definitions for TBLA, TBLB, and MWPN are found in cards 285-380 of the Weapons Supply model. The actual data for TBLA and TBLB are defined in cards 690-762 of the Main Supply model and cards 391-402 of the Ship Overhaul model. The actual data for TBLA, TBLB, and MWPN are defined in cards 687-733 of the Weapons Supply model.

Data contained within matrices are defined by specifying the matrix name, the row number, the column number, and the value of the data. KWPNXX (Appendix B) is used here for illustrative purposes. On card 697 of KWPNXX, TBLA(1,11) is set equal to 0, and TBLA(2,11) is set equal to 2. The prefix "MHS" must always be used. Either one or two matrix data definitions may be used on one line. When two are used, they are separated by a slash. Card 721 illustrates only one matrix data definition on a line.

It is also possible to define more than one data element at a time (i.e., with a single data definition). For example, card 703 defines TBLA(3,2), TBLA(4,2), TBLA(5,2) and TBLA(6,2) all to be set equal to 3.

In defining data contained within matrices, it is sometimes necessary to add and/or delete one or more lines of coding. To delete lines of coding, substitute the following sequence of instructions for the phrase "USER SUPPLIED DATA CHANGES" in the instruction sequence of Section 3.2:

```
1 initial (names of first data element to be deleted)      <return>
d(number of lines to be deleted)                          <return>
```

For example, to delete card 693 and card 694, use the instruction sequence

```
1 initial mh$tbla(1,7)                                <return>
d2                                         <return>
```

To add lines of coding, substitute the following sequence of instructions for the phrase "USER SUPPLIED DATA CHANGES" in the instruction sequence of Section 3.2:

```
1 initial (name of data element preceding data insertion) <return>
                                                 <return>
(lines of coding to be inserted)                      <return>
                                                 <return>
```

For example, to set TBLA(7,1) = 1, TBLA(7,2) = 2, TBLA(7,3) = 3, and TBLA(7,4) = 4 after card 719, use the instruction sequence

1 initial	mh\$tbla(3-6,14)	<return>
		<return>
initial	mh\$tbla(7,1),1/mh\$tbla(7,2),2	<return>
initial	mh\$tbla(7,3),3/mh\$tbla(7,4),4	<return>
		<return>

4.4 CATALOGING AND PURGING OF FILES

4.4.1 Cataloging of New Files

Each of the three simulation models contains a specific set of built-in input data. For each run to be made, the user modifies this data to describe the particular scenario to be examined. Often the user will wish to preserve a certain version of one of the models, defined by the inputs used in a given run. This may be accomplished by cataloging this version of the model as a new file. One additional command is required for this purpose. After saving the new version of the model with a "save" command, the user must execute the "catalog" command. A modification of the Section 3.2 example for this purpose might yield the following command sequence:

attach,gpss	<return>
attach,netedf	<return>
attach,aaa,kmhexx,id=cabr	<return>
netedf,aaa	<return>
1 flba s	<return>
c/16/20/	<return>
save bbb	<return>
catalog,bbb,kmheyy,id=cabr	<return>
gpss,i=bbb,fx	<return>
route,output,dc=pr,tid=c,fid=*cabr	<return>
logout	<return>

In this example, the new file is named KMHEYY and may henceforth be accessed for model execution by use of the "attach" command.

4.4.2 Purging of Old Files

The user will occasionally wish to get rid of previous versions of the models which are of no further use. Any of these model versions (each existing as a separately stored and named file) may be deleted by use of the "purge" command. The format for the "purge" command is

purge,ppp,MODELNAME,id=USERID	<return>
-------------------------------	----------

To purge an unwanted file named KMHE444 the user may, for instance, expanding on the Section 3.1 example, utilize the following command sequence:

login,cabrpaulbr,sup	<return>
amrts18743	<return>
gasline	<return>
purge,ppp,kmhe444,id = cabr	<return>
logout	<return>

5. EXPLANATION OF OUTPUT

The output from a sample run of the Main Supply simulation model is found on pages 56-78 of Appendix A. This particular run simulates three days of actual Main Supply activity material handling. The statistical data are accumulated separately for each day; therefore, there are three sets of output data, each with the same format. The set of data described in this section represents one day of a simulation; for example, the data representing day 3 of the Main Supply simulation is found on pages 72-78 of Appendix A. The output format for the Weapons Supply model (Appendix B) and the Ship Overhaul model (Appendix C) is similar to that for the Main Supply model. For brevity, therefore, only the day 3 output for the sample runs of the Weapons Supply model and the Ship Overhaul model are included.

5.1 MHE EQUIPMENT USED

The first group of data (top of page 72, Appendix A) within this set defines the MHE equipment used. The equipment name, an abbreviated definition, and the corresponding card number (within the main program listing) for the complete equipment definition are given here.

5.2 MHE EQUIPMENT UTILIZATION

The second group of data (bottom of page 72, Appendix A) gives the MHE equipment utilization. There are eight columns, each with two headings. The second heading is automatically printed by the computer program. The first heading is provided to give the user more information. The first column gives the name of the MHE equipment per functional location. The second column gives the number of each type of MHE available for use. The third column gives the average number of each type of MHE equipment used during an eight-hour day. The fourth column gives the average utilization for each type of MHE; the utilization is for all MHE equipment of a given type and will take on a value between 0 and 1. The fifth column gives the total number of times that each type of MHE equipment was used during the day. The sixth column gives the average time (in minutes) that each piece of any of the MHE equipment types is used. The seventh column gives the number of each equipment type in use at the end of that day. The eighth column gives the maximum number of each MHE equipment type in use at one time during the day. The total number of pieces of MHE equipment is also printed out, along with the overall MHE equipment utilization.

5.3 SINGLE VALUED INPUT PARAMETERS

The third grouping of data (page 73, Appendix A) is a listing of the single-valued (not within a matrix) input parameters with the user-supplied values for

this particular run. Also given are the abbreviated definitions and the card numbers within the main program listing on which the complete definitions of these variables may be found.

5.4 MATRIX INPUT DATA

The fourth grouping (pages 74-76, Appendix A) lists data that are user-supplied and that define cargo delivery and issue document information (matrices TBLA and TBLB). In the Weapons Supply model, this grouping also contains matrix MWPN, which contains weapon consolidation data. Abbreviated definitions for these data are given in this grouping. The complete definitions are given within the main program listing at the indicated card numbers.

5.5 THROUHPUT DATA

The fifth and final grouping (pages 77-78, Appendix A) of data consists of the throughput matrix AAA1. This is a tabulation of the movement of supplies (cargo) throughout the system on a day-by-day basis. Each row of matrix AAA1 contains the throughput data for one day of the simulation. Abbreviated versions of the applicable column definitions are given in this grouping. The complete definitions are given within the main program listing at the indicated card numbers.

6. SCREEN VIEWING AND EDITING OF OUTPUT

6.1 SCREEN VIEWING OF OUTPUT

In running any one of the three simulation models, the user will often be interested in only a limited quantity of the output data. In this case the user may elect to view the simulation output on the terminal screen rather than to obtain a printout. To view a selected portion of the simulation output on the screen, the user substitutes the following commands for the "route" instruction (next to last command) in the instruction sequence of Section 3.2:

screen,132	<return>
SET UP - 9 - SET UP	<return>
netedf,output	<return>
1 (first occurrence of desired string)	<return>
p (number of lines to be printed)	<return>

The instruction "SET UP - 9 - SET UP" consists of the hitting of three keys: first hit the "SET UP" keys; then hit the "9" key; then hit the "SET UP" key again.

As an example, to display the utilization statistics for day 3 of the Main Supply simulation, the following instruction sequence is used (the first instruction is applicable only to VT100-compatible terminals capable of displaying 132 characters per line):

screen,132	<return>
SET UP - 9 - SET UP	
netedf,output	<return>
1 y 3	<return>
1 util	<return>
p 25	<return>

The "1 y 3" command moves the cursor to the line

"RESET	RESET FOR DAY 3",
--------	-------------------

card 2892, on page 71 (Appendix A). The "1 util" command then moves the cursor to the line "MHE EQUIPMENT UTILIZATION" on page 72 of Appendix A. The "p 25" command then prints this line and the following 24 lines, displaying the complete utilization table upon the screen. It is sometimes necessary, as in the above example, to use more than one "1" command (here we used two: "1 y 3" and "1 util").

6.2 EDITING OF OUTPUT

Hardcopy output may be obtained by routing the simulation output to the printer with the "route" command, as shown in Section 3.2. However, this command sequence causes the entire output from the model execution to be printed. Often the user wants only a selected and limited amount of the total output to be printed. This may be accomplished by editing the output; that is, by deleting those portions of the total output not desired as hardcopy.

Deletion of selected portions of the output is accomplished by use of the two versions of the "delete" command. The "dtop" command removes from the output file everything preceding (but not including) the current line. The "dx" command deletes the present line and the following x-1 lines (for a total of x lines deleted).

For example, if the user wishes to print out only the day 3 output from a run of the Main Supply module, the following instruction sequence (a modification of the Section 3.2 example) is used:

attach,gpss	<return>
attach,netedf	<return>
attach,aaa,kmhexx,id=cabr	<return>
netedf,aaa	<return>
1 flba s	<return>
c/16/20/	<return>
save bbb	<return>
gpss,i=bbb,fx	<return>
netedf,output	<return>
1 y 3	<return>
dtop	<return>
1 end	<return>
d 10000	<return>

```
save ccc                                <return>
route,ccc,dc=pr,tid=c,fid=*cabr        <return>
logout                                    <return>
```

The "1 y 3" command moves the cursor to card number 2889 (Appendix A, page 71). The "dtop" command then deletes everything preceding this line. The "1 end" command moves the cursor to card number 2891. The "d 10000" command then deletes everything including and after line 2891. The number 10000 is used as an arbitrarily large number to ensure that the rest of the output file will be deleted. The "save ccc" command saves what is left of the file (card 2889 on page 71 through the bottom of page 78). The "route" command then sends this edited version of the output to the printer.

7. MHE ANALYSIS

7.1 OBJECTIVE

The objective of this analysis is to offer the MHE system manager/user the convenience of identifying the potential effects of adjustments of key parametric values on MHE utilization at Main Supply Activities without the necessity of running the MHE simulation module.

7.2 APPROACH

To fulfill the objective of this analysis, it is necessary to compare, vary, and analyze several key factors within the Main Supply material handling system. These factors include

- the functional locations (Receiving, Storage (includes Warehousing and Issuing), and Packing & Shipping) at which material handling is performed
- the MHE resources (types and numbers) used to perform the necessary tasks
- the material throughput (functional location inputs and outputs)
- the overall and functional MHE location utilization (in percentages)

The measures of effectiveness (MOEs) used as a basis for comparing and analyzing the results of alternative simulation runs are MHE utilization and throughput. The tool used in performing this analysis is the Main Supply simulation module.

The amounts of material handled and the numbers of MHE assigned to each functional location are varied in order to compare and analyze the resulting effects on utilization and material throughput. This is done for several activities that include NSC Charleston and those activities having the minimum (NSC Puget Sound) and maximum (NSC Norfolk) number of MHE assigned to their Main Supply functions.

These variations are performed for two situations: (1) MHE is distributed to and solely supports each assigned functional location (non-community). (2) the MHE assigned to Receiving and to Packing & Shipping is centrally located and is available to either, as required, from a common or community pool. The MHE located at the Storage functional location solely supports its material handling tasks.

7.3 DATA SOURCES

The quantitative data used to exercise the Main Supply simulation module were acquired from visits (personnel interviews and observations) to NSC Charleston and documentation acquired from Code 0302, Navy Ships Parts Control Center, Ashore Activity Verification and Allowance Listing, SPCC-5230/181 (Rev 1-87).

7.4 FORMATS

To present the key descriptive information and facilitate its comprehension, appropriate tabular formats (see Tables A.1/A.2 and B.1/B.2) were prepared for data presentation and analysis. Tabular format A.1/A.2 is used when adjustments solely to the number of MHE assigned per functional location (either community or non-community arrangements) are made to the Main Supply module inputs. Tabular format B.1/B.2 is used when adjustments solely to the amount of material (number of pallets) handled at all the functional locations are made to the Main Supply module inputs. Tables A.1 and B.1 are used for non-community MHE assignments; A.2 and B.2 are used for MHE community assignments.

The categories used are as follows:

Activity Name	NSC Charleston, Puget Sound or Norfolk
Functional Location	Receiving, Storage, Packing & Shipping, or Central*
Type of MHE	4k, 6k, 10k or larger forklifts, crane, sideloader or straddle truck
Number of MHE	numeric MHE value assigned to designated functional location
Percent Utilization	of each MHE type assigned to each designated functional location or community of functional locations
In/Out Throughput	values in terms of number of pallets to be handled at each designated functional location
Total Number of MHE	summary of all assigned and available MHE per Main Supply activity functional locations
Overall Utilization	based upon the average utilization of all MHEs operating in all the Main Supply functional locations
MHE Adjustment	percent MHE decrease relative to initial values/functional location
Material Inputs	increases in Received, Issued and Tenant material (pallets) inputs to the Main Supply system

* MHE available to all functional locations.

Table A.1. Non-community MHE adjustments.

Activity Name	Funct Loc	Type MHE	No. of MHE	Percent Utiliz.			Throughput			Total No. of MHE			Overall Utiliz.			MHE Adjust (percent decrease)			
							In			Out									
				a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	
Charleston	Recv	4kfl	16	16	16	58	62	396	396	591	584	587	106	83	77	38	50	53	0 0 0
	P&S	4kfl	19	15	10	31	42	58	273	281	277	295	277	260	—	—	—	0 24 48	
	Star	4kfl	6	4	3	33	45	59	—	—	—	—	—	—	—	—	—	—	
	6kfl	33	25	25	37	51	51	947	940	939	944	954	945	—	0	27	27	—	
	10kfl	2	1	1	3	5	5	—	—	—	—	—	—	—	—	—	—	—	
	Crane	1	1	1	75	75	75	—	—	—	—	—	—	—	—	—	—	—	
Puget Sound	SL	2	1	1	6	13	13	—	—	—	—	—	—	—	—	—	—	—	
	Central	ST	13	10	10	42	46	49	—	—	—	—	—	—	—	—	—	—	
	Recv	4kfl	10	10	60	60	198	198	297	297	57	48	42	43	50	58	0 0 0		
	P&S	4kfl	11	8	6	36	47	65	139	159	135	165	165	161	—	0 21 43	—	—	
	Star	4kfl	3	3	2	44	46	68	—	—	—	—	—	—	—	—	—	—	
	6kfl	20	17	15	44	54	62	534	534	534	538	534	537	—	0 18 27	—	—		
Norfolk	10kfl	1	1	1	6	6	6	—	—	—	3	—	—	—	—	—	—	—	
	Crane	1	1	1	75	75	75	—	—	—	—	—	—	—	—	—	—	—	
	SL	3	2	2	3	5	5	—	—	—	—	—	—	—	—	—	—	—	
	Central	ST	0	0	0	0	0	0	—	—	—	—	—	—	—	—	—	—	
	Recv	4kfl	121	121	—	61	59	—	2706	2706	—	4159	4066	—	725	535	—	40 49 —	
	P&S	4kfl	137	77	—	31	50	—	1933	1933	—	1837	1972	—	—	—	0 44 —	—	
Star	6kfl	45	25	—	31	49	—	—	—	—	—	—	—	—	—	—	—	—	
	10kfl	26	13	—	3	5	—	6567	6585	—	6494	6584	—	—	—	0 28 —	—	—	
	Crane	13	13	—	75	71	—	—	—	—	—	—	—	—	—	—	—	—	
	SL	2	2	—	48	50	—	—	—	—	—	—	—	—	—	—	—	—	
	Central	ST	28	28	—	71	66	—	—	—	—	—	—	—	—	—	0 0 0	—	

Table A.2. Community MHE adjustments.

Activity Name	Funct Loc	Type MHE	No. of MHE	Percent Utiliz.			Throughput			Total No. of MHE			Overall Util.			MHE Adjust (percent decrease)							
							In			Out													
				a	b	c	a	b	c	a	b	c	a	b	c	a	b	c					
Charleston	Recv/P&S	4kfl	35	31	26	40	50	60	680	682	685	886	872	840	106	83	77	38	49	53	0	15	29
	Stor	4kfl	33	25	25	38	51	52	950	961	949	962	962	953	—	—	—	—	—	—	0	27	27
		6kfl	14	10	10	37	51	51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		10kfl	2	1	1	3	5	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Crane	1	1	1	75	75	75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		SL	2	1	1	6	13	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Central	ST	13	10	10	41	48	48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Puget Sound	Recv/P&S	4kfl	21	18	16	44	51	57	357	351	358	445	463	453	57	48	42	38	50	57	0	13	21
	Stor	4kfl	20	17	15	44	53	61	530	538	538	533	519	532	—	—	—	—	—	—	0	18	33
		6kfl	8	6	5	45	56	63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		10kfl	1	1	1	6	6	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Crane	1	1	1	75	75	75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		SL	3	2	1	3	5	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Central	ST	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Norfolk	Recv/P&S	4kfl	258	200	—	40	53	—	4469	4642	—	6003	5971	—	725	562	—	40	52	—	0	21	—
	Stor	4kfl	248	186	—	39	52	—	6590	6548	—	6625	6735	—	—	—	—	—	—	—	0	25	—
		6kfl	105	80	—	39	51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		10kfl	26	13	—	3	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Crane	13	13	—	75	75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		SL	2	2	—	48	48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Central	ST	28	28	—	70	68	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0	—

Table B.1. Non-community material adjustments.

Activity Name	Funct. Loc	Type MHE	No. of MHE	Percent Utiliz			Throughput			Out	Total No. of MHE	Overall Utiliz.			Material Inputs (Pallets)				
				a	b	c	a	b	c			a	b	c	a	b	c		
Charleston	Recv	4kfl	16	58	71	75	396	484	594	591	717	725	106	38	45	53	504	622	
		4kfl	19	31	38	44	273	338	380	295	347	423				500	600	800	
		6kfl	6	33	33	47										24	32	40	
	Stor	4kfl	33	37	43	60	947	1160	1428	944	1152	1379				1028	1254	1605	
		6kfl	14	36	44	59													
		10kfl	2	2	3	3													
Puget Sound	Crane	Crane	1	75	75	75													
		SL	2	6	6	6													
		ST	13	42	55	38													
	Central	Recv	4kfl	10	60	73	76	198	242	286	297	363	323	57	43	53	60	261	311
		P&S	4kfl	11	36	49	56	139	208	256	165	216	264			300	400	500	
		6kfl	3	44	45	52	—	—	6							12	15	18	
Norfolk	Stor	4kfl	20	44	55	65	534	678	781	538	669	793				573	726	897	
		6kfl	8	45	57	65													
		10kfl	1	6	6	6													
	Central	Crane	1	75	75	75													
		SL	3	3	3	3													
		ST	0	0	0	0													
23	Norfolk	Recv	4kfl	121	61	76	75	2706	3344	3980	4159	4663	3957	725	40	49	55	3453	4250
		P&S	4kfl	137	31	39	49	1933	2455	2896	1837	2459	3191			3500	4500	5500	
		6kfl	45	31	38	49										164	200	280	
	Central	Stor	4kfl	248	38	47	55	6567	8030	8871	6494	7804	8995			7117	8950	10910	
		6kfl	105	37	47	54													
		10kfl	26	3	3	3													
	Central	Crane	13	75	75	76													
		SL	2	48	48	48													
		ST	28	71	68	68													

Table B.2. Community material adjustments.

Activity Name	Funct. Loc	Type MHE	No. of MHE	Percent Utiliz			Throughput			Out			Total No. of MHE	Overall Utiliz.			Material Inputs (Pallets)			
				a	b	c	a	b	c	a	b	c		a	b	c	a	b	c	
Charleston	Recv/P&S	4kfl	35	40	52	65	680	826	1038	886	1046	1295	106	38	47	59	504	622	765	
		6kfl	6	55	60	71	-	-	-	-	-	-	-	-	-	-	500	600	800	
		Stor	4kfl	33	38	47	60	950	1148	1488	962	1159	1459	-	-	-	24	32	40	
	Central	6kfl	14	37	45	61	-	-	-	-	-	-	-	-	-	-	1028	1254	1605	
		10kfl	2	75	75	75	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Crane	1	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
Puget Sound	Recv/P&S	SL	2	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
		ST	13	41	43	53	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Recv/P&S	4kfl	21	44	57	70	357	450	542	445	565	695	57	42	53	64	261	311	379
	Central	6kfl	3	57	66	73	-	-	-	-	-	-	-	-	-	-	300	400	500	
		Stor	4kfl	20	44	56	69	530	678	838	533	673	838	-	-	-	12	15	18	
		10kfl	8	45	56	69	-	-	-	-	-	-	-	-	-	-	513	726	897	
Norfolk	Recv/P&S	Crane	1	75	75	75	-	-	-	-	-	-	-	-	-	-	-	-	-	
		SL	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
		ST	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Stor	4kfl	258	40	53	66	4469	5892	6862	6003	7556	9230	725	40	50	61	3453	4250	5130	
		6kfl	45	56	65	71	-	-	-	-	-	-	-	-	-	-	3500	4500	5500	
		6kfl	105	39	49	61	6590	8295	10274	6625	8147	9776	-	-	-	-	164	200	280	
24	Central	10kfl	26	3	3	3	-	-	-	-	-	-	-	-	-	-	7117	8950	10910	
		Crane	13	75	75	75	-	-	-	-	-	-	-	-	-	-	-	-	-	
		SL	2	48	48	48	-	-	-	-	-	-	-	-	-	-	-	-	-	
24	Central	ST	28	70	70	72	-	-	-	-	-	-	-	-	-	-	-	-	-	

7.5 ANALYSIS

The following tables represent the average daily (8 hours) simulated interrelationships of MHE and material (pallets and heavy bulky) performed by the NSC Puget Sound, NSC Charleston, and NSC Norfolk Main Supply functions.

The material and MHE baseline data used for Charleston were based on discussions with knowledgeable personnel and on time and motion data acquired while visiting that activity. The MHE baseline data used for NSC Puget Sound and NSC Norfolk were extracted from the Navy Ships Parts Control Center, Ashore Activity Verification and Allowance Listing, SPCC-5230/181 (Rev 1-87). The baseline data used for Puget Sound and Norfolk are proportional to their amounts of MHE in relation to those of Charleston and were developed from Charleston's amount of baseline material.

The data exhibited in these tables represent variations in numbers of MHE (decreases) assigned to functional locations (Tables A.1 and A.2) and to the amounts of material handled by MHE (increases) at each of the functional locations (Tables B.1 and B.2). Tables A.1 and B.1 represent non-community MHE functional assignments. Tables A.2 and B.2 represent community functional assignments. The data under the letters a, b, and c are taken from the initial and ensuing simulation runs.

7.6 RESULTS

7.6.1 Decreased MHE Availability

7.6.1.1 *Non-community*. MHE reductions were implemented at all but the Receiving functional locations. This reduction was due to the relatively high MHE utilization values (compared to those of the other functional locations) that already existed at each activity, Receiving function. Reductions in the numbers of assigned MHE as simulation inputs were substantial (see Tables A.1 and A.2).

- (a) Material Throughput — The reduced numbers of MHE assigned to the activity functional locations for the various simulation runs caused minimal to no effect on restricting the flow of material within and between functional locations.
- (b) MHE Functional Location Utilization — As the numbers of MHE were decreased, the percent of MHE utilization increased by a proportional amount for all the activities' functions. There was minor (at Norfolk) to no deviation from this inversely proportional relationship.
- (c) Overall MHE Utilization — The overall decrease in the number of MHE compared to the percent of MHE utilization held true for the Main Supply Systems of all the activities.

7.6.1.2 *Community*.

- (a) Material Throughput — The effects of decreasing the numbers of MHE on activity functional location throughput input and output values were very minor.
- (b) MHE Functional Location Utilization — The decrease in numbers of MHE was proportional to the increase in MHE utilization per

functional location for all the activities. There was a small variation from this correspondence at Norfolk's Packing and Shipping functional location.

(c) Overall MHE Utilization — The inverse proportional relationship between the overall numbers of MHE assigned and MHE utilized held true for all the activities' Main Supply Systems.

7.6.1.3 *Non-community vs. Community Comparisons.*

(a) Material Throughput — The non-community and community MHE arrangements were compared by summing the Receiving and Packing and Shipping functional throughput input values. This same comparison was made for the material throughput output values. No significant differences were noted between the MHE non-community and community arrangements.

(b) MHE Functional Utilization — The differences between the non-community and community MHE assignments were found at their Receiving and Packing and Shipping functional locations. For either arrangement a decrease in the numbers of MHE resulted in a corresponding increase in the percent of utilization of MHE; therefore, a comparative analysis was performed in the following steps:

- For each non-community simulation run, the product of the number of MHE and its associated percent of MHE utilization was determined, first for the Receiving and then for the Packing and Shipping functions.
- These two values were added, giving a cumulative Receiving/Packing and Shipping MHE utilization.
- For each community simulation run, the products of the number of MHE assigned to the common Receiving/Packing and Shipping pool and the associated percent of MHE utilization was determined.
- These non-community and community MHE utilization values (for the same activity and levels of assigned MHE) were compared. No significant differences were found.

(c) Overall MHE Utilization — The products of the overall number of assigned MHE and overall percent of utilization were determined for each pair of corresponding activity simulation runs. No significant differences were found.

7.6.2 *Increased Material Inputs*

The effects of increased amounts of material to be handled by an activity could be of major concern. These variations might be due to changes in mission assignment or contingency level.

Material adjustments were made solely to the numbers of pallets because they made up approximately 90% of the total amount of material handled by the activities. Adjusted material inputs were categorized as follows:

Received — Inputs coming into the activity from outside the Main Supply System, including material coming into the Receiving functional location for handling and material going directly to Storage (after the processing of the

associated paperwork at the Receiving functional location).

Issued — Material issued from the Storage functional location (warehouses) and destined for either on-station or off-station users.

Tenants — Material being sent from on-station users (tenants) to off-station users via the Packing and Shipping functional location.

7.6.2.1 Non-community.

- (a) **Material Throughput** — Approximately 25% increases (relative to the initial values) in the amounts of palletized material handled by the Main Supply Systems caused minimal change to the throughput "in" and "out" functional values. However, when the amounts of material inputs were increased by more than 50%, the material flow was inhibited.
- (b) **MHE Functional Location Utilization** — As the material inputs were increased, the percent of MHE utilization increased by a proportional amount at the Packing and Shipping and Storage functional locations. The percent of utilization saturation point appears to have been reached at the Receiving function (for all the activities) when the material inputs were increased by about 25%.
- (c) **Overall MHE Utilization** — The overall utilization increased proportionately to the percent of material input values; however, the percent of utilization did not increase as much as the percent of material inputs for values of about 25%.

7.6.2.2 Community.

- (a) **Material Throughput** — The effects of significant increases in the amounts of material on the "in" to "out" throughput ratio appear to be minor for all the activities' functional locations.
- (b) **MHE Functional Location Utilization** — The increases in the amounts of material inputs were proportional to the increases in MHE utilization at all the activities' functional locations.
- (c) **Overall MHE Utilization** — The overall MHE utilization increases were directly proportional to the material input increases for all the activities.

7.6.2.3 Non-community vs. Community Comparisons.

- (a) **Material Throughout** — There was no significant difference or advantage in either the non-community or community MHE arrangement when the material input increases were approximately 25%. However, when the amounts of material input were increased by more than 50%, a material flow constraint developed at the non-community Receiving functional locations. This situation does not exist with the community arrangement.
- (b) **MHE Functional Location Utilization** — When the material inputs increased by more than 50%, MHE utilization went to maximum (approximately 75%) for all the non-community Receiving functional locations. This situation did not occur for the community MHE

arrangements. The MHE available at the Packing and Shipping in the community pool arrangement absorbed the effects of the increased material flow.

- (c) Overall MHE Utilization — Comparison of the non-community and community MHE arrangements indicates minor MHE utilization differences when the material input increases were held to approximately 25% for all the activities. However, when the material inputs were greater than 50%, a relatively greater percent of MHE utilization was noted at all the community arrangements because the utilization at non-community Receiving functions (at all activities) had reached maximum.

APPENDIX A
MAIN SUPPLY MODEL SAMPLE RUN

ALOCID NUMBER	INITIAL CONDITION	INITIAL ACTION	COMMENT	CARD NUMBER
	INITIALIZE FORKLIFTS			2
		INITIALIZE MATERIAL HANDLERS OR WEAPONS SUPPLY		1
				2
				3
				4
				5
				6
				7
				8
				9
				10
1	FLPA STORAGE	1	GROUP 21W (4K) FORKLIFTS AT INERT WEAPONS MATERIAL RECEIVING) DEDICATED TO INERT GROUP 11W (6K) FORKLIFTS AT INERT DEDICATED	11
2	FLAA STORAGE	994	1C INERT	12
3	FLRC STORAGE	999	GROUP 23B (4K) FORKLIFTS AT WEAPONS ASSEMBLY AREA DEDICATED TO WEAPONS ASSEMBLY AREA	13
4	FLAC STORAGE	1	GROUP 13W (6K) FORKLIFTS AT WEAPONS ASSEMBLY AREA DEDICATED TO WEAPONS ASSEMBLY AREA	14
5	FLEX STORAGE	1	GROUP 21W (4K) FORKLIFTS AT INERT USED AT WEAPONS ASSEMBLY AREA	15
6	FLPA STORAGE	3	GROUP 21W (4K) FORKLIFTS AT INERT USED AT WEAPONS ASSEMBLY AREA OR LIVE EXPLOSIVE AREA (MAGAZINES OR HOT CARGO AREA)	16
7	FLAX STORAGE	3	GROUP 11W (6K) FORKLIFTS USED ANYWHERE LIVE EXPLOSIVE AREA, INERT OF WEAPONS ASSEMBLY AREA (LOCATED AT INERT)	17
8	CPLA STORAGE	995	GROUP OWN CONTAINERS HANDLERS (USED AT WEAPONS MATERIAL RECEIVING)	18
9	CPLA STORAGE	979	GROUP 4W (4/6K) CRANES USED AT WEAPONS MATERIAL RECEIVING	19
10	CREA STORAGE	999	GROUP 5W (10K) CRANES (USED AT WEAPONS MATERIAL RECEIVING)	20
11	SLHA STORAGE	996	GROUP 8W (4K) SIDELOADERS (USED AT WEAPONS MATERIAL RECEIVING)	21
12	SLCA STORAGE	999	GROUP 7W (30K) SIDELOADERS (USED AT WEAPONS MATERIAL RECEIVING)	22
13	CHFO STORAGE	999	GROUP OWN CONTAINERS HANDLERS (USED AT HOT CARGO AREA)	23
14	CREF STORAGE	999	GROUP 42 (4/6K) CRANES (USED AT HOT CARGO AREA)	24
15	SLHB STORAGE	999	GROUP 6W (4K) SIDELOADERS (USED AT HOT CARGO AREA)	25
16	STPK STORAGE	999	STEADABLE TRUCKS	26
17	SLHC STORAGE	999	GROUP 63W (4K) SIDELOADERS (USED AT FORM BUILDUP AREA)	27
18	CRCG STORAGE	1	GROUP 43W (4/6K) CRANES (USED AT BUILDUP AREA)	28
			SAVEVALUT INITIALIZATIONS	47
				48
			INITIALIZE TIME	49
			X-MSCUP,-1	50
			X-MSCUPP,-1	51
			X-MSCUK,-1	52
			X-MSCUR,-1	53
			X-MSCURP,-1	54

WICK NUMBER	WICK IDN	WICK IDN	A,B,C,D,E,F,G,H,I,J	COMENTS	CARD NUMBER
INITIAL	XHSTLCK6,-1	XHSTLCK6,-1	XHSTLCK6,-1	INITIALIZE TIME INITIALIZE TIME NUMBER OF ENTRIES IN COLUMN 1 OF MSHBLA	55 56 57
INITIAL	XHSTPLA1	XHSTPLA1	XHSTPLA1	NUMBER OF ENTRIES IN COLUMN 3 OF MSHBLA	58 59
INITIAL	XHSTPLA2	XHSTPLA2	XHSTPLA2	NUMBER OF ENTRIES IN COLUMN 5 OF MSHBLA	59 60
INITIAL	XHSTPLA3	XHSTPLA3	XHSTPLA3	NUMBER OF ENTRIES IN COLUMN 7 OF MSHBLA	61 62
INITIAL	XHSTPLA4	XHSTPLA4	XHSTPLA4	NUMBER OF ENTRIES IN COLUMN 9 OF MSHBLA	62 63
INITIAL	XHSTPLA5	XHSTPLA5	XHSTPLA5	NUMBER OF ENTRIES IN COLUMN 11 OF MSHBLA	63 64
INITIAL	XHSTPLA6	XHSTPLA6	XHSTPLA6	NUMBER OF ENTRIES IN COLUMN 13 OF MSHBLA	64 65
INITIAL	XHSTPLA7	XHSTPLA7	XHSTPLA7	TIME (IN MINUTES) FOR A GROUP 61W CONTAINERS MANAGER TO OFFLOAD A	65 66
INITIAL	XHSTPLA8	XHSTPLA8	XHSTPLA8	TIME (IN MINUTES) TO LOAD MATERIAL IN TRUCK ONTO SKIDS	67 68
INITIAL	XHSSXGNE,600	XHSSXGNE,600	XHSSXGNE,600	FRACTION OF TIME GROUP 21W FORKLIFT IS CHOSIN INSTL OF GRUP 11W FORKLIFT WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	69 70 71
INITIAL	XHSSYGN,400	XHSSYGN,400	XHSSYGN,400	FRACTION OF TIME GROUP 11W FORKLIFT IS CHOSIN INSTEAD OF GROUP 21W FORKLIFT WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	72 73
INITIAL	XHSTLPPFA,4	XHSTLPPFA,4	XHSTLPPFA,4	TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO UNLOAD A PALLET FROM A TRUCK, OR VICE VERSA	74 75
INITIAL	XHSTLCPA,6	XHSTLCPA,6	XHSTLCPA,6	TIME (IN MINUTES) FOR A 4/6K CRANE TO UNLOAD A NON-FORKLIFTABLE LOAD FROM A TRUCK, OR VICE VERSA	76 77
INITIAL	XHSTLCK6,0	XHSTLCK6,0	XHSTLCK6,0	TIME (IN MINUTES) FOR A 10K CRANE TO UNLOAD A NON-FORKLIFTABLE LOAD FROM A TRUCK, OR VICE VERSA	78 79
INITIAL	XHSSLWHA,1	XHSSLWHA,1	XHSSLWHA,1	* IF NON-FORKLIFTABLE LOADS AT WEAPNS MATERIAL RECEIVING ARE TO BE STORED OUTSIDE WAREHOUSE; * 1 IF NON-FORKLIFTABLE LOADS AT WEAPNS MATERIAL RECEIVING ARE TO BE STORED INSIDE WAREHOUSE	80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109
INITIAL	XHSTPSLA,0	XHSTPSLA,0	XHSTPSLA,0	TIME (IN MINUTES) FOR A STOLOADER TO MOVE A NON-FORKLIFTABLE LOAD FROM OUTSIDE WAREHOUSE TO INSIDE WAREHOUSE STORAGE AT WEAPONS	
INITIAL	XHSSLWMB,1	XHSSLWMB,1	XHSSLWMB,1	MATERIAL RECEIVING * 0 IF FORKLIFTABLE LOADS (PALLET(S)) AT WEAPNS MATERIAL RECEIVING ARE TO BE STORED OUTSIDE WAREHOUSE; * 1 IF FORKLIFTABLE LOADS (PALLET(S)) AT WEAPNS MATERIAL RECEIVING ARE TO BE STORED INSIDE WAREHOUSE	
INITIAL	XHSTPPFA,4	XHSTPPFA,4	XHSTPPFA,4	TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO MOVE A FORKLIFTABLE LOAD (PALLET) FROM OUTSIDE WAREHOUSE TO INSIDE WAREHOUSE STORAGE AT WEAPONS MATERIAL RECEIVING	
INITIAL	XHSTMPFB,4	XHSTMPFB,4	XHSTMPFB,4	TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO MOVE A PALLET FROM THE	

BLOCK NUMBER	OLD C	OPERATION	A,B,C,D,E,F,G,H,I,J	COMMENT	CARD NUMBER
*	INITIAL	XHSTPPA,5		INERT WAREHOUSE TO TEMPORARY STAGING (PACKING AND SHIPPING) TIME (IN MINUTES) TO PACK AND PACKAGE A PALLET	110
*	INITIAL	XHSTXTO,500		FRACTION OF TIME GROUP 21W FORKLIFT IS CHOSIN INSTEAD OF GROUP 11W FORKLIFT WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	111
*	INITIAL	XHSTYTH,500		FRACTION OF TIME GROUP 110W FORKLIFT IS CHOSIN INSTEAD OF GROUP 21W FORKLIFT WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	112
*	INITIAL	XHSTSBLB,0		TIME (IN MINUTES) FOR A SIDELOADER TO MOVE A NON-FORKLIFTABLE LOAD FROM THE HOT CARGO AREA TC AND INSIDE A MAGAZINE, AND RETURN TO THE HOT CARGO AREA	113
*	INITIAL	XHSTTRNA,6		TIME (IN MINUTES) FOR A TRUCK AND FORKLIFT TO TRANSIT FROM THE HOT CARGO AREA/OFFICE TO THE MAGAZINE AREA	114
*	INITIAL	XHSTLPPF8,12		TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO UNLOAD A PALLET FROM A TRUCK, STORE THE PALLETS IN A MAGAZINE, AND RETURN TO THE TRUCK	115
*	INITIAL	XHSSPPTA,1		- 1 IF A FORKLIFT IS USED TO SUPPORT THE PACKING AND PACKAGING PROCESS - 0 IF OTHERWISE	116
*	INITIAL	XHSSPTB,1		- 1 IF A FORKLIFT IS USED TO SUPPORT THE WEAPON ASSEMBLY PROCESS AT THE BOMB BUILDUP AREA - 0 IF OTHERWISE	117
*	INITIAL	XHSTASMA,30		TIME (IN MINUTES) TO ASSEMBLE MH59MPN(1,5) WEAPONS AT THE BOMB BUILDUP AREA	118
*	INITIAL	XHSDIVA,200		FRACTION OF ASSEMBLED (CONSOLIDATED) WEAPONS WHICH ARE TO BE DELIVERED FROM BOMB BUILDUP AREA TO ON-STATION USERS (EXPRESSED IN PARTS PER THOUSAND)	119
*	INITIAL	XHSDIVB,600		FRACTION OF ASSEMBLED (CONSOLIDATED) WEAPONS WHICH ARE TO BE DELIVERED FROM BOMB BUILDUP AREA TO OFF-STATION USERS VIA PACKING AND SHIPPING (EXPRESSED IN PARTS PER THOUSAND)	120
*	INITIAL	XHSTPPFC,4		TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO MOVE A PALLET FROM STORAGE (INERT WAREHOUSE) TC TEMPORARY STAGING (INERT WAREHOUSE)	121
*	INITIAL	XHSTTRNB,C		TIME (IN MINUTES) FOR A TRUCK TO TRANSIT FROM TEMPORARY STAGING (INERT WAREHOUSE) TO PACKING AND SHIPPING (WEAPONS ASSEMBLY AREA)	122
*	INITIAL	XHSTTHRC,C		FRACTION OF TIME GROUP 23W FORKLIFT IS CHOSIN INSTEAD OF GROUP 13W FORKLIFT WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	123
*	INITIAL	XHSTTHRE,1000		FRACTION OF TIME GROUP 13W FORKLIFT IS CHOSIN INSTEAD OF GROUP 23W FORKLIFT	124

BLOCK NUMBER	LOC	OPERATION	A, B, C, D, E, F, G, H, I, J	COMMENTS	CARD NUMBER
				WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	165
INITIAL	XHSTLNA,12			TIME (IN MINUTES) TO MOVE A 4K OR 6K FORKLIFT FROM MOT CARGO AREA/OFFICE	166
INITIAL	XHSTPPFD,4			TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO MOVE A PALLET FROM STORAGE (AT MAGAZINE) TO TEMPORARY STAGING (AT MAGAZINE)	167
INITIAL	XHSTTNC,6			TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT AND A TRUCK TO TRANSIT FROM TEMPORARY STAGING (MAGAZINE) TO PACKING AND SHIPPING (WEAPONS ASSEMBLY AREA)	168
INITIAL	XHSTTFC,0,12			TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO BE TRUCKED FROM PACKING AND SHIPPING (WEAPONS ASSEMBLY AREA) TO MOT CARGO AREA/OFFICE	169
INITIAL	XHSTTPFE,4			TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO MOVE A PALLET FROM STORAGE (INERT WEAPONS WAREHOUSE) TO TEMPORARY STAGING (INERT WEAPONS WAREHOUSE)	170
INITIAL	XHSTTNE,11			TIME (IN MINUTES) FOR A TRUCK TO TRANSIT FROM TEMPORARY STAGING (INERT WEAPONS WAREHOUSE) TO BOMB BUILDUP AREA	171
INITIAL	XHSTTKHIN,1			MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF STRADDLE TRUCK	172
INITIAL	XHSTTKMAX,3			MAXIMUM NUMBER OF PALLETS THAT STRADDLE TRUCK CAN CARRY	173
INITIAL	XHSTTKIN,1			MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF FLATBED TRUCK	174
INITIAL	XHSTTKMAX,13			MAXIMUM NUMBER OF PALLETS THAT FLATBED TRUCK CAN CARRY	175
INITIAL	XHSTPPFF,1			TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO POSITION ONE PALLET FOR STRADDLE TRUCK	176
INITIAL	XHSTTLA,2			TIME (IN MINUTES) FOR A 4K SIDELoader TO TRANSIT BETWEEN INERT WEAPONS WAREHOUSE AND BOMB BUILDUP AREA	177
INITIAL	XHSTTSLB,2			TIME (IN MINUTES) FOR 30K SIDELoader TO TRANSIT BETWEEN INERT WEAPONS WAREHOUSE AND BOMB BUILDUP AREA	178
INITIAL	XHSTTPFG,6			TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO MOVE A PALLET FROM A MAGAZINE AND LOAD IT ONTO A TRUCK	179
INITIAL	XHSTTENF,6			TIME (IN MINUTES) FOR A TRUCK AND FORKLIFT TO TRANSIT FROM MAGAZINES TO BOMB BUILDUP AREA	180
INITIAL	XHSTTNG,12			TIME (IN MINUTES) FOR A TRUCK AND FORKLIFT TO TRANSIT FROM BOMB BUILDUP AREA TO MOT CARGO AREA	181
INITIAL	XHSTTLC,2			TIME (IN MINUTES) FOR A 4K SIDELoader TO MOVE A LOAD FROM THE MAGAZINE TO THE BOMB BUILDUP AREA AND RETURN	182
INITIAL	XHSTTTA,2			TIME (IN MINUTES) FOR STRADDLE TRUCK TO TRANSIT FROM INERT WEAPONS WAREHOUSE TO BOMB BUILDUP AREA	183

BLOCK NUMBER	PLIC	OPERATION	A,B,C,D,E,F,G,H,I,J	COMMENTS	CARD NUMBER
INITIAL	XHSTUTB,2	TIME (IN MINUTES) FOR STRADDLE TRUCK TO TRANSIT FROM BOMB BUILDUP AREA TO ON-STATION USER AND RETURN			220
INITIAL	X4TPSIC,2	TIME (IN MINUTES) FOR A 4K SIDeloADER 1C TRANSIT FROM BOMB BUILDUP AREA TO ON-STATION USER AND RETURN			221
INITIAL	XHSTTRNH,30	TIME (IN MINUTES) FOR A TRUCK TO TRANSIT FROM BOMB BUILDUP AREA TO ON-STATION USER			222
INITIAL	XMSIMPFH,6	TIME (IN MINUTES) FOR A 6K OR 6K FORKLIFT TO MOVE A PALLET FROM BOMB BUILDUP AREA TO PACKING AND SHIPPING IS ALWAYS ADJACENT TO BOMB BUILDUP AREA)			223
INITIAL	XHSTPSLD,2	TIME (IN MINUTES) FOR A 4K SIDeloADER TO MOVE A NON-FORKLIFTABLE CONSOLIDATED WEAPON FROM BOMB BUILDUP AREA TO PACKING AND SHIPPING			224
INITIAL	XHSTPPNF,35	TIME (IN MINUTES) TO PACK AND PACKAGE A NON-FORKLIFTABLE CONSOLIDATED WEAPON			225
INITIAL	XHSTTRN,6	TIME (IN MINUTES) FOR A 6K OR 6K FORKLIFT TO TRANSIT FROM THE INFRT RECEIVING AREA TO THE HOT CARGO AREA			226
INITIAL	XHSTTRN,6	TIME (IN MINUTES) FOR A TRUCK AND RECEIVING AREA AND THE MAGAZINE AREA			227
INITIAL	XHSTTKN,6	TIME (IN MINUTES) FOR A TRUCK AND A 4K OR 6K FORKLIFT TO TRANSIT BETWEEN THE BOMB BUILDUP AREA AND THE INFRT RECEIVING AREA			228
		VARIABLE DEFINITIONS			229
1	TLPFA VARIABLE	XHSTLPFA#P1			230
2	TLPFD VARIABLE	XHSTLPFB#P1			231
3	TPFFF VARIABLE	XHSTMPFF#P1			232
4	NPLT1 VARIABLE	P1#P2			233
5	NPLT2 VARIABLE	P1#P3			234
6	THCHA VARIABLE	P1#HSTMCHA			235
7	TLMSA VARIABLE	P1#AMSTLMSA			236
8	TPPGF VARIABLE	XHSTPPFG#P1			237
9	NUP1 VARIABLE	RSCHFA#SSCHFA			238
10	NUM2 VARIABLE	RSFLA#SSFLA			239
11	NUM3 VARIABLE	RSCDA#SSCDA			240
12	NUM4 VARIABLE	RSCRE#SSCREA			241
13	NUM5 VARIABLE	ASSLM#SSSLMA			242
14	NUM6 VARIABLE	PS56A#SS51GA			243
15	NUM7 VARIABLE	RSCHFB#SSCHFB			244
16	NUM8 VARIABLE	RSFLBB#SSFLBB			245
17	NUM9 VARIABLE	RSCELAB#SSSFLAB			246
18	NUM10 VARIABLE	RSCDAB#SSCDB			247
19	NUM11 VARIABLE	ASSLMB#SSSLMB			248
20	NUM12 VARIABLE	PS56B#SS51GB			249
21	NUM13 VARIABLE	FSFLBC#SSFLAC			250
22	NUM14 VARIABLE	RFFLAC#SSFLAC			251
23	NUM15 VARIABLE	F51TA#SS51RK			252
24	NUM16 VARIABLE	FS51MC#SS51MC			253
25	NUM17 VARIABLE	FSCHDC#SSCDC			254

BLOCK NUMBER	• LJC	OPERATION	A, B, C, D, E, F, G, H, I, J	COMMENTS	CARD NUMBER
26	NUP1K	VARIABLE	PSFLAAKS5FLAAKS		275
27	NUP1K	VARIABLE	PSFLBAKS5FLBAKS		276
28	NL>20	VARIABLE	RSFLBAKS5FLBAKS		277
29	PKQDA	VARIABLE	MNSOVUL1,P1>MNSOVUL1(2,P1)		278
30	SUMF	VARIABLE	MNSOVUL1(2,19)>MNSOVUL1(2,P1)		279
31	SUMF	VARIABLE	MNSOVUL1(3,19)>MNSOVUL1(3,P1)		280
32	ULV1	VARIABLE	IMNSOVUL1(3,14)>MNSOVUL1(2,19)1/10		281
					282
					283
					284
1	TELA	MATRIX	H>10>14		285
			COLUMN 1 = HOURS AT WHICH TRUCKS ARRIVE AT WEAPONS MATERIAL RECEIVING CARRYING INERT INCOPING MATERIAL		286
			COLUMN 2 = NUMBER OF TRUCKS ARRIVING AT WEAPONS MATERIAL RECEIVING AT HOUR SPECIFIED IN COLUMN 1		287
			COLUMN 3 = HOURS AT WHICH VEHICLES ARRIVE AT HOT CARGO AREA/OFFICE CARRYING LIVE EXPLOSIVES		288
			COLUMN 4 = NUMBER OF VEHICLES ARRIVING AT HOT CARGO AREA/OFFICE AT HOUR SPECIFIED IN COLUMN 3		289
			COLUMN 5 = HOURS AT WHICH ISSUE DOCUMENTS ARRIVE AT INERT WAREHOUSE FOR INEP1 BULK MATERIAL (PALLETIZED) GOING TO OFF-STATION USERS (INERT WAREHOUSE ADJACENT TO PACKING AND SHIPPING)		290
			COLUMN 6 = NUMBER OF ISSUE DOCUMENTS ARRIVING AT INERT WAREHOUSE AT HOUR SPECIFIED IN COLUMN 5 (FOR INERT WAREHOUSE ADJACENT TO PACKING AND SHIPPING)		291
			COLUMN 7 = HOURS AT WHICH ISSUE DOCUMENTS ARRIVE AT INERT WAREHOUSE FOR INERT BULK MATERIAL (PALLETIZED) GOING TO OFF-STATION USERS (INERT WAREHOUSE NOT ADJACENT TO PACKING AND SHIPPING)		292
			COLUMN 8 = NUMBER OF ISSUE DOCUMENTS ARRIVING AT INERT WAREHOUSE AT HOUR SPECIFIED IN COLUMN 7 (FOR INERT WAREHOUSE NOT ADJACENT TO PACKING AND SHIPPING)		293
			COLUMN 9 = HOURS AT WHICH ISSUE DOCUMENTS ARRIVE AT HOT CARGO AREA/OFFICE FOR LIVE EXPLOSIVE BULK MATERIAL (PALLETIZED) GOING TO OFF-STATION USERS		294
			COLUMN 10 = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOT CARGO AREA/OFFICE AT HOUR SPECIFIED IN COLUMN 9		295
			COLUMN 11 = HOURS AT WHICH ISSUE DOCUMENTS ARRIVE AT INERT WEAPONS WAREHOUSE SPECIFYING MATERIAL TO BE MOVED TO CONSOLIDATION STAGING (BOMB BUILDUP AREA) (DESCRIBED IN MHSTBLB(5,2), MHSTBLB(5,3) AND MHSTBLB(5,4))		296
			COLUMN 12 = NUMBER OF ISSUE DOCUMENTS ARRIVING AT INERT WEAPONS WAREHOUSE AT HOUR SPECIFIED IN COLUMN 11		297
			COLUMN 13 = HOURS AT WHICH ISSUE DOCUMENTS ARRIVE AT HOT CARGO AREA/OFFICE SPECIFYING MATERIAL (LIVE EXPLOSIVES) TO BE MOVED FROM MAGAZINES TO BOMB BUILDUP AREA (DESCRIBED IN MHSTBLB(5,5) AND MHSTBLB(5,6))		298
			COLUMN 14 = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOT CARGO AREA/OFFICE AT HOUR SPECIFIED IN COLUMN 13		299
2	TELB	MATRIX	H>5>6		300
			HOW 1 CONTAINS DATA FOR TRUCKS ARRIVING AT WEAPONS MATERIAL RECEIVING CARRYING INERT INCOPING MATERIAL		301
			(1,1) = 1 IF CARGO IS CONTAINERSIZED		302
			(1,1) = 0 IF CARGO IS NOT CONTAINERSIZED		303

DIN 5400, 67TH MD. 20004 GRS 9/6000

CEN GPSS V/600G VEH. 1.3 PSK 526 04/14/67 04.10.01. PAGE 9

BLOCK NUMBER	LOCATION	OPERATION	A,B,C,D,E,F,G,H,I,J	COMMENTS	CARD NUMBER
			(1,2) * NUMBER OF PALLETS ON PALLET EQUIVALENTS ON TRUCK		330
			(1,3) * 1 IF LOADS ARE ON SKIDS		331
			(1,3) * 0 IF LOADS ARE NOT ON SKIDS		332
			(1,4) * NUMBER OF NON-FORKLIFTABLE LOADS LESS THAN OR EQUAL TO .4K ON TRUCK		333
			(1,5) * NUMBER OF NON-FORKLIFTABLE LOADS GREATER THAN .4K		334
			4K UP TRUCK		335
			ROW 2 CONTAINS DATA FOR LIVE EXPLOSIVE VEHICLES ARRIVING AT HOT CARGO AREA/OFFICE		336
			(2,1) * 1 IF CARGO IS CONTAINERIZED		337
			(2,1) * 0 IF CARGO IS NOT CONTAINERIZED		338
			(2,2) * NUMBER OF PALLETS OR PALLET EQUIVALENTS ON VEHICLE		340
			(2,2) * 0 IF LOADS ARE NOT CONTAINERIZED		341
			(2,3) * NUMBER OF PALLETS OR PALLET EQUIVALENTS ON VEHICLE		342
			(2,3) * 0 IF LOADS ARE NOT ON SKIDS		343
			(2,4) * NUMBER OF NON-FORKLIFTABLE LOADS ON VEHICLE		344
			ROW 3 CONTAINS DATA FOR ISSUE DOCUMENTS ARRIVING AT INERT WAREHOUSE SPECIFYING INERT BULK MATERIAL (PALLETIZED)		345
			GOING TO OFF-STATION USERS		346
			(3,1) * NUMBER OF PALLETS SPECIFIED IN EACH ISSUE DOCUMENT FOR THE CASE WHEN INERT WAREHOUSE IS ADJACENT TO PACKING AND SHIPPING		347
			(3,2) * NUMBER OF PALLETS SPECIFIED IN EACH ISSUE DOCUMENT FOR THE CASE WHEN INERT WAREHOUSE IS NOT ADJACENT TO PACKING AND SHIPPING		348
			ROW 4 CONTAINS DATA FOR ISSUE DOCUMENTS ARRIVING AT HOT CARGO AREA/OFFICE SPECIFYING LIVE EXPLOSIVE BULK MATERIAL (PALLETIZED) GOING TO OFF-STATION USERS		349
			(4,1) * NUMBER OF PALLETS SPECIFIED IN EACH ISSUE DOCUMENT ROW 5 (COLUMNS 1, 2, 3 AND 4) CONTAINS DATA FOR ISSUE DOCUMENTS APPLYING AT INERT WEAPONS WAREHOUSE SPECIFYING MATERIAL TO BE MOVED TO CONSOLIDATION STAGING (BOMB BUILDUP AREA)		350
			(5,1) * NUMBER OF FORKLIFTABLE LOADS TO GO BY TRUCK		351
			(5,2) * NUMBER OF FORKLIFTABLE LOADS TO GO BY SPADDE TRUCK		352
			(5,3) * NUMBER OF NON-FORKLIFTABLE LOADS LESS THAN OR EQUAL TO .4K		353
			(5,4) * NUMBER OF NON-FORKLIFTABLE LOADS GREATER THAN .4K		354
			ROW 5 (COLUMNS 5 AND 6) CONTAINS DATA FOR ISSUE DOCUMENTS ARRIVING AT HOT CARGO AREA/OFFICE SPECIFYING LIVE EXPLOSIVES GOING FROM MAGAZINES TO BOMB BUILDUP AREA		355
			(5,5) * NUMBER OF FORKLIFTABLE LOADS		356
			(5,6) * NUMBER OF NON-FORKLIFTABLE LOADS		362
	MATRIX	H,1,5			363
			(1,1) * NUMBER OF FORKLIFTABLE LOADS OF INERT MATERIAL USED IN THE ASSEMBLY OF AMMUNITION WEAPONS		364
			(1,2) * NUMBER OF NON-FORKLIFTABLE LOADS OF INERT MATERIAL USED IN THE ASSEMBLY OF AMMUNITION WEAPONS		365
			(1,3) * NUMBER OF FORKLIFTABLE LOADS OF LIVE EXPLOSIVES USED IN THE ASSEMBLY OF AMMUNITION WEAPONS		366
			(1,4) * NUMBER OF NON-FORKLIFTABLE LOADS OF LIVE EXPLOSIVES USED IN THE ASSEMBLY OF AMMUNITION WEAPONS		367
			(1,5) * NUMBER OF ASSEMBLED WEAPONS RESULTING FROM COMBINING PHSPWPN(1,1) + PHSPWPN(1,2) + PHSPWPN(1,3) + PHSPWPN(1,4)		368
	MATRIX	H,6,6			369
			(1,1) * NUMBER OF PALLETS UNLOADED FROM TRUCKS AT WEAPONS MATERIAL RECEIVING AND CURRENTLY AT WEAPONS MATERIAL RECEIVING (OUTSIDE WAREHOUSE)		370

3

4

CARD NUMBER	UPURATION	A, B, C, D, E, F, G, H, I, J	COMMENTS
11021	*	ACCUMULATED NUMBER OF NON-FORKLIFTABLE INPUT LOADS LEAVING IN-STATI WAREHOUSE GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (303 IN)	591
11021	*	ACCUMULATED NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS FROM MAGAZINES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (302 IN)	592
11021	*	ACCUMULATED NUMBER OF NON-FORKLIFTABLE LIVE EXPLOSIVE LOADS ISSUED FROM MAGAZINES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (302 IN)	593
11021	*	ACCUMULATED NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS LEAVING MAGAZINES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (302 OUT)	594
11021	*	ACCUMULATED NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS COMING INTO BOMB BUILDUP AREA FROM MAGAZINES FOR WEAPONS CONSOLIDATION (303 IN)	595
11021	*	ACCUMULATED NUMBER OF NON-FORKLIFTABLE LIVE EXPLOSIVE LOADS COMING INTO BOMB BUILDUP AREA FROM MAGAZINES FOR WEAPONS CONSOLIDATION (302 OUT)	596
11021	*	ACCUMULATED NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS LEAVING BOMB BUILDUP AREA GOING TO ON-STATION USERS (303 OUT)	597
11021	*	ACCUMULATED NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS LEAVING BOMB BUILDUP AREA GOING TO ON-STATION USERS (303 OUT)	598
11021	*	ACCUMULATED NUMBER OF FORKLIFTABLE CONSOLIDATED WEAPONS LEAVING BOMB BUILDUP AREA GOING TO OFF-STATION USERS (303 OUT)	599
11021	*	ACCUMULATED NUMBER OF FORKLIFTABLE CONSOLIDATED WEAPONS (PALLET(S)) LEAVING BOMB BUILDUP AREA GOING TO OFF-STATION USERS (303 OUT)	600
11021	*	ACCUMULATED NUMBER OF NON-FORKLIFTABLE CONSOLIDATED WEAPONS LEAVING BOMB BUILDUP AREA GOING TO OFF-STATION USERS (303 OUT)	601
11021	M, P, O, T, S, J	MATRIX M, P, O, T, S, J THROUHOUT MATRIX. VALUES ARE CUMULATIVE OVER TIME. THE VALUES IN THE FIRST ROW ARE FOR THE FIRST 8 HOURS OF THE RUN; THE VALUES IN THE SECOND ROW ARE FOR THE FIRST 16 HOURS OF THE RUN; THE VALUES IN THE THIRD ROW ARE FOR THE FIRST 24 HOURS OF THE RUN; AND SO ON, EACH SUCCESSIVE ROW GIVING CUMULATIVE VALUES REPRESENTATIVE OF THE SITUATION AFTER THE PASSAGE OF 9 MORE HOURS OF TIME.	602
11021	COLUMN 1	= ACCUMULATED INPUT MATERIAL BY NUMBER OF FORKLIFTABLE LOADS COMING INTO WEAPONS MATERIAL RECEIVING BY VEHICLE (301 IN)	603
11021	COLUMN 2	= ACCUMULATED INPUT MATERIAL BY NUMBER OF NON-FORKLIFTABLE LOADS COMING INTO WEAPONS MATERIAL RECEIVING BY VEHICLE (301 IN)	604
11021	COLUMN 3	= ACCUMULATED NUMBER OF LIVE EXPLOSIVE FORKLIFTABLE LOADS COMING INTO HOT CARGO AREA BY VEHICLE (302 IN)	605
11021	COLUMN 4	= ACCUMULATED NUMBER OF LIVE EXPLOSIVE NON-FORKLIFTABLE LOADS COMING INTO HOT CARGO AREA BY VEHICLE (301 IN)	606
11021	COLUMN 5	= ACCUMULATED NUMBER OF INPUT PALLETS ISSUED IN BULK FROM INPUT WASHMOUNT GOING TO EFFECT-TION USERS (302 IN)	607

BLOCK NUMBER	LUC	UP:RATION A,B,C,D,E,F,G,H,I,J	COMMENTS	CARD NUMBER
		(301 IN)	NUMBER OF INERT PALETTES ISSUED FROM INERT WAREHOUSE GOING TO BOMB BUILDUP AREA FOR WEAPONS	605
		COLUMN 7 = ACCUMULATED NUMBER OF INERT PALETTES ISSUED FROM INERT WAREHOUSE GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 IN)	606	
		COLUMN 8 = ACCUMULATED NUMBER OF INERT PALETTES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 IN)	607	
		COLUMN 9 = ACCUMULATED NUMBER OF INERT PALETTES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 IN)	608	
		COLUMN 10 = ACCUMULATED NUMBER OF INERT PALETTES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 IN)	609	
		COLUMN 11 = ACCUMULATED NUMBER OF INERT PALETTES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 IN)	610	
		COLUMN 12 = ACCUMULATED NUMBER OF INERT PALETTES ISSUED IN EUK LEAVING PACKING AND SHIPPING AND GOING TO OFF-STATION USERS (301 OUT)	611	
		COLUMN 13 = ACCUMULATED NUMBER OF INERT PALETTES LEAVING INERT WAREHOUSE GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 OUT)	612	
		COLUMN 14 = ACCUMULATED NUMBER OF NON-FORKLIFTABLE INERT LOADS LEAVING INERT WAREHOUSE GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 OUT)	613	
		COLUMN 15 = ACCUMULATED NUMBER OF LIVE EXPLOSIVE PALETTES ISSUED IN BULK FROM MAGAZINES GOING TO OFF-STATION USERS (301 OUT)	614	
		COLUMN 16 = ACCUMULATED NUMBER OF LIVE EXPLOSIVE LOADS ISSUED FROM MAGAZINES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 IN)	615	
		COLUMN 17 = ACCUMULATED NUMBER OF NON-FORKLIFTABLE LIVE EXPLOSIVE LOADS ISSUED FROM MAGAZINES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 IN)	616	
		COLUMN 18 = ACCUMULATED NUMBER OF LIVE EXPLOSIVE PALETTES ISSUED IN BULK LEAVING MAGAZINE AREAS GOING TO PACKING AND SHIPPING (IN WEAPONS ASSEMBLY AREA) DESTINED FOR OFF-STATION USERS (301 OUT)	617	
		COLUMN 19 = ACCUMULATED NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS LEAVING MAGAZINES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 OUT)	618	
		COLUMN 20 = ACCUMULATED NUMBER OF NON-FORKLIFTABLE LIVE EXPLOSIVE LOADS LEAVING MAGAZINES GOING TO BOMB BUILDUP AREA FOR WEAPONS CONSOLIDATION (301 OUT)	619	
		COLUMN 21 = ACCUMULATED NUMBER OF LIVE EXPLOSIVE PALETTES ISSUED IN BULK ENTERING PACKING AND SHIPPING IN WEAPONS ASSEMBLY AREA FROM MAGAZINE AREAS DESTINED FOR OFF-STATION USERS (302 IN)	620	
		COLUMN 22 = ACCUMULATED NUMBER OF INERT PALETTES COMING INTO BOMB BUILDUP AREA FROM INERT WAREHOUSE FOR WEAPONS CONSOLIDATION (302 IN)	621	
		COLUMN 23 = ACCUMULATED NUMBER OF NON-FORKLIFTABLE INERT LOADS	622	

BINSPECCETTI M., 2000, CESSI V./60000

CRAN GPRS Y/GPRS VERS. 1.0.3 PSR 520 04/14/67 09-10-01 PAGE 15

CARD NUMBER	OPERATION	A,B,C,D,E,F,G,H,I,J	COMMENTS
			LEAVING INFAT HANGAR GOING TO BOMB BUILDUP AREA
			FOR WEAPONS CONSOLIDATION (302 IN)
COLUMN 24 =	ACCUMULATED NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS COPING INTO BOMB BUILDUP AREA FROM MAGAZINES		(302 IN)
COLUMN 25 =	ACCUMULATED NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS COMING INTO BOMB BUILDUP AREA FROM MAGAZINES		(302 IN)
COLUMN 26 =	ACCUMULATED NUMBER OF LIVE EXPLOSIVE PALLETS LISTED IN BULK LEAVING PACKING AND SHIPPING GOING TO OFF-STATION USERS (302 OUT)		(302 OUT)
COLUMN 27 =	ACCUMULATED NUMBER OF FORKLIFTABLE CONSOLIDATED WEAPONS (PALLETS) LEAVING BOMB BUILDUP AREA GOING TO ON-STATION USERS (302 OUT)		(302 OUT)
COLUMN 28 =	ACCUMULATED NUMBER OF NON-FORKLIFTABLE CONSOLIDATED WEAPONS LEAVING BOMB BUILDUP AREA GOING TO UN-STATION USERS (302 OUT)		(302 OUT)
COLUMN 29 =	ACCUMULATED NUMBER OF FORKLIFTABLE CONSOLIDATED WEAPONS (PALLETS) LEAVING BOMB BUILDUP AREA GOING TO OFF-STATION USERS (302 OUT)		(302 OUT)
COLUMN 30 =	ACCUMULATED NUMBER OF NON-FORKLIFTABLE CONSOLIDATED WEAPONS LEAVING BOMB BUILDUP AREA GOING TO OFF-STATION USERS (302 OUT)		(302 OUT)
GROUT MATRIX	X,3,19		OVERALL UTILIZATION MATRIX
			MATRIX INITIALIZATIONS
INITIAL			MHSTBLA(1,1)*0/MHSTBLA(2,1)*5
INITIAL			MHSTBLA(1,2),3/MHSTBLA(2,2)*3
INITIAL			MHSTBLA(1,3)*0/MHSTBLA(2,3)*7
INITIAL			MHSTBLA(1,4)*2/MHSTBLA(2,4)*2
INITIAL			MHSTBLA(1,5)*5,MHSTBLA(2,5)*2
INITIAL			MHSTBLA(1,6)*2/MHSTBLA(2,6)*1
INITIAL			MHSTBLA(1,7)*0,MHSTBLA(2,7)*0
INITIAL			MHSTBLA(1,8)*0/MHSTBLA(2,8)*0
INITIAL			MHSTBLA(1,9)*0,MHSTBLA(2,9)*2
INITIAL			MHSTBLA(1,10)*1,MHSTBLA(2,10)*1
INITIAL			MHSTBLA(1,11)*0,MHSTBLA(2,11)*2
INITIAL			MHSTBLA(1,12)*1,MHSTBLA(2,12)*1
INITIAL			MHSTBLA(1,13)*0,MHSTBLA(2,13)*2
INITIAL			MHSTBLA(1,14)*1,MHSTBLA(2,14)*1
INITIAL			MHSTBLA(1,15)*0,MHSTBLA(2,15)*1
INITIAL			MHSTBLA(1,16)*1,MHSTBLA(2,16)*1
INITIAL			MHSTBLA(1,17)*6,MHSTBLA(2,17)*3
INITIAL			MHSTBLA(1,18)*8,MHSTBLA(2,18)*15
INITIAL			MHSTBLA(1,19)*16,MHSTBLA(2,19)*23
INITIAL			MHSTBLA(1,20)*6,MHSTBLA(2,20)*2
INITIAL			MHSTBLA(3,2)*8,MHSTBLA(4,2)*10
INITIAL			MHSTBLA(5,2)*16,MHSTBLA(6,2)*16
INITIAL			MHSTBLA(3,-c)*2,MHSTBLA(4,-c)*1
INITIAL			MHSTBLA(5,-c)*2,MHSTBLA(6,-c)*1
INITIAL			MHSTBLA(3,-q)*8,MHSTBLA(4,-q)*16
INITIAL			MHSTBLA(5,-q)*16,MHSTBLA(6,-q)*16
INITIAL			MHSTBLA(3,-b)*10,MHSTBLA(4,-b)*10
INITIAL			MHSTBLA(5,-b)*10,MHSTBLA(6,-b)*10

CINCPAC, PETH, MD. 20064 GPSS V/6000

CRM GPSS V/6000 V.R. 1.3 PSR 526 04/14/67 09:10:01. PAGE 16

BLOCK NUMBER	*LOC	OPTRAILN	A,B,C,D,E,F,G,H,I,J	COMMENTS	CARD NUMBER
INITIAL		MHSTBLA(5,11)	16/MHSTBLA(6,11),1,b		715
INITIAL		MHSTBLA(3-6,12),1			716
INITIAL		MHSTBLA(3,13)	9/PMHSTBL(4,13),1,c		717
INITIAL		MHSTBLA(5,13)	16/PMHSTBL(6,13),1,c		718
INITIAL		MHSTBLA(3-6,14)			719
INITIAL		MHSTBLB(1,1)	0/MHSTBL(1,2),4		720
INITIAL		MHSTBLB(1,3)	1		721
INITIAL		MHSTBLB(1,4)	0/MHSTBLB(1,5),0		722
INITIAL		MHSTBLB(2,1)	0/MHSTBLB(2,2),2		723
INITIAL		MHSTMPLA(2,3)	1		724
INITIAL		MHSTMPLB(2,4)	0		725
INITIAL		MHSTMPLB(3,1)	4/MHSTMPLB(3,2),4		726
INITIAL		MHSTMPLB(4,1)	3		727
INITIAL		MHSTMPLB(5,1)	12/MHSTMPLB(5,2),c		728
INITIAL		MHSTMPLB(5,4)	0		729
INITIAL		MHSTMPLB(5,5)	9/PMHSTMPLB(5,6),c),0		730
INITIAL		MHSMPN(1,1)	1/MHSMPN(1,2),0		731
INITIAL		MHSMPN(1,3)	3/MHSMPN(1,4),0		732
INITIAL		MHSMPN(1,5)	1		733
*	*	BOOLEAN VARIABLES			734
1	SKL	RSFLBA=G&RSFLAC=G			735
2	FKLB	KFLBAAG-C&RSFLAXG=0			736
3	FKLC	RSFLBC=G&RSFLAC=G			737
4	WPA	MHSTMPLA(6,1)WE=MHSMPN(1,1)			738
5	WPB	MHSTMPLA(6,2)WE=MHSMPN(1,2)			739
6	WPAC	MHSTMPLA(6,3)WE=MHSMPN(1,3)			740
7	WPNC	MHSTMPLA(6,4)WE=MHSMPN(1,4)			741
8	WPNE	SYSPMPN@BVSMPNB@VSUPNC@BVS@PND			742
*	*	INERT - ALL INCURRING MATERIAL IS UNLOADED AT WEAPONS MATERIAL RECEIVING			743
*	*	*			744
*	*	*			745
1	GENERATE	C0,P1	GENERATE TEST TRANSACTION ONCE PER HOUR		746
2	SAVEVALUE	MOURA=P1,M	UPDATE TIME ON AN HOURLY BASIS		747
3	ASSIGN	LMHSTMPLB1	STORE NUMBER OF ENTITIES IN COLUMN 1		748
4	AAA	TEST MC MHSTMPLB(P1,1),XMHOURA=AB	TEST FOR NO TRUCK ARRIVALS AT THIS HOUR		749
5	LOOP	1,AAA			750
6	TERMINATE	NO TRUCK ARRIVALS AT THIS HOUR			751
7	AAH	SPLIT MHSTMPLB(P1,2),AAK	CREATE ONE TRANSACTION FOR EACH TRUCK		752
8	AAK	MSAVVALUE AAA8@,2,1,PMHSTMPLB(1,2),H	UPDATE MATRIX AAAB		753
9		MSAVVALUE AAA6@,1,2,PMHSTMPLB(1,4),H	UPDATE MATRIX AAAB		754
10		MSAVVALUE AAA8@,1,2,PMHSTMPLB(1,5),H	UPDATE MATRIX AAAB		755
11		TEST E MHSTMPLB(1,1),AAC	TEST IF CARGO IS CONTAMINATED		756
12		ENT," CFA CAPTURE GROUP 61W CONTAINERIZED			765
13		ADVANCE, XHMSTPCHA	UFFLOAD CONTAINER(61W) FROM VEHICLE		766
14		LEAVL CFA FREE 610LP 61W CONTAINER HANDLED			767
15		SPLIT 1,AAI			768
16		AAI			769

BLOCK NUMBER	LOC	INITIATION	AS PLS, GATE, GATE, GATE, J	COMMENTS	CARD NUMBER
1	FLPA	STORAGE	57	GROUP 21Y (4K) FORKLIFTS	2
2	FLAA	STORAGE	36	GROUP 21Y (6K) FORKLIFTS	3
3	FLCA	STORAGE	27	GROUP 31Y FORKLIFTS (EQUAL TO OR GREATER THAN 10K)	4
4	FLCB	STORAGE	15	GROUP 32Y FORKLIFTS (EQUAL TO OR GREATER THAN 10K) - ASSIGNED TO REPAIR SHOPS	5
5	CFEA	STORAGE	2	GROUP 51Y CRANES (EQUAL TO OR GREATER THAN 10K) - ASSIGNED TO REPAIR SHOPS	6
6	CFEB	STORAGE	4	GROUP 52Y CRANES (EQUAL TO OR GREATER THAN 10K) - ASSIGNED TO REPAIR SHOPS	7
7	STKA	STORAGE	6	GROUP 12Y (6K) FORKLIFTS - ASSIGNED TO REPAIR SHOPS	8
8	FLAF	STORAGE	25	GROUP 12Y (6K) FORKLIFTS - ASSIGNED TO REPAIR SHIPS	9
9	FLAR	STORAGE	49	GPJUP 22Y (4K) FORKLIFTS - ASSIGNED TO REPAIR SHOPS	10
10	SICF	STORAGE	1	GROUP 72Y SIDELOADERS - ASSIGNED TO REPAIR SHOPS	11
11					12
12					13
13					14
14					15
15					16
16					17
17					18
18					19
19					20
20					21
21					22
22					23
23					24
24					25
25					26
26					27
27					28
28					29
29					30
30					31
31					32
32					33
33					34
34					35
35					36
36					37
37					38
38					39
39					40
40					41
41					42
42					43
43					44
44					45
45					46
46					47
47					48
48					49
49					50
50					51
51					52
52					53
53					54
54					

BLOCK NUMBER	BLUC	OPERATION	A,P,C,E,F,G,M,H,J	COMMENTS	CARD NUMBER
*	*	INITIAL	XHSTRBCD,1	TIME (IN MINUTES) FOR AN EQUAL TO OR GREATER THAN 10K CRANE TO TRANSFER ONE HEAVY BULKY ITEM FROM LOWER DECK TO TEMPORARY LOCATION (PIER)	55
*	*	INITIAL	X-51116A,7	TIME (IN MINUTES) FOR A TRUCK TO TRANSIT MEAR PIER (IF OF TEMPORARY SERVICES)	56
*	*	INITIAL	X-HSTICRA,0	TIME (IN MINUTES) FOR AN EQUAL TO OR GREATER THAN 10K CRANE TO TRANSIT NEAR PIER AREA (TEMPORARY SERVICES)	57
*	*	INITIAL	X-HSTICRA,1	TIME (IN MINUTES) FOR AN EQUAL TO OR GREATER THAN 10K CRANE TO TRANSFER ONE ITEM OF RIPPED OUT MATERIAL FROM UPPER DECK TO TEMPORARY LOCATION (PIER)	58
*	*	INITIAL	XHSDTM,0	NUMBER OF 4K FORKLIFTS TO BE USED WHEN HANDLING DELAY TIME (IN MINUTES) BEFORE CUTTING MOLE(S) IN SHIP HULL	59
*	*	INITIAL	XMSCTHL,1	- 1 IF MOLE(S) IS (ARE) TO BE CUT IN SHIP HULL WITH THE USE OF FORKLIFTS, • 0 IF OTHERWISE	60
*	*	INITIAL	XMSMFKA,0	NUMBER OF 4K FORKLIFTS TO BE USED WHEN CUTTING MOLE(S) IN SHIP HULL (IF SPECIFIED)	61
*	*	INITIAL	XMSFKLA,60	TIME (IN MINUTES) THAT 4K FORKLIFTS WILL BE USED TO CUT MOLE(S) IN SHIP HULL (IF SPECIFIED)	62
*	*	INITIAL	X-5MFKL,2	NUMBER OF 6K FORKLIFTS TO BE USED WHEN CUTTING MOLE(S) IN SHIP HULL (IF SPECIFIED)	63
*	*	INITIAL	X-5TFKL,3,60	TIME (IN MINUTES) THAT 6K FORKLIFTS WILL BE USED TO CUT MOLE(S) IN SHIP HULL (IF SPECIFIED)	64
*	*	INITIAL	XMSPTR,0	FRACTION OF TIME WE WANT TO USE GROUP 91Y STRADDLE TRUCKS, INSTEAD OF FORKLIFTS, TO MOVE PALLETIZED RIPOUT ITEMS FROM TEMPORARY STAGING (PIER) TO REPAIR SHOPS (EXPRESSED IN PARTS PER THOUSAND)	65
*	*	INITIAL	XHSTPPF,20	TIME (IN MINUTES) FOR A 4K, 6K, OR EQUAL TO OR GREATER THAN 10K FORKLIFT TO TRANSFER ONE PALLETIZED RIPOUT ITEM FROM TEMPORARY STAGING (PIER) TO INSIDE REPAIR SHOPS AND RETURN	66
*	*	INITIAL	X-HSYCNE,1000	FRACTION OF TIME RIPOUT ITEMS GREATER THAN 6K ARE TRANSFERRED FROM TEMPORARY STAGING (PIER) TO INSIDE REPAIR SHOPS BY A GROUP 31Y FORKLIFT, INSTEAD OF BEING TRANSFERRED TO OUTSIDE REPAIR SHOPS BY A FLATBED TRUCK (EXPRESSED IN PARTS PER THOUSAND)	67
*	*	INITIAL	XHSPNE,1000	FRACTION OF TIME RIPOUT ITEMS GREATER THAN 6K ARE TRANSFERRED FROM TEMPORARY STAGING (PIER) TO OUTSIDE REPAIR SHOPS BY A FLATBED TRUCK, INSTEAD OF BEING TRANSFERRED TO INSIDE REPAIR SHOPS BY A GROUP 31Y FORKLIFT (EXPRESSED IN PARTS PER THOUSAND)	68
*	*	INITIAL	XHSPFLN,0	FRACTION OF HEAVY BULKY RIPOUT ITEMS WHICH ARE NON-ELONGATED (EXPRESSED IN PARTS PER THOUSAND)	69
*	*	INITIAL	XHSPFLN,0	FRACTION OF HEAVY BULKY RIPOUT ITEMS WHICH ARE ELONGATED (EXPRESSED IN PARTS PER THOUSAND)	70
*	*	INITIAL	X-HSTPFP,4	TIME (IN MINUTES) FOR AN EQUAL TO OR GREATER THAN 10K FORKLIFT TO LOAD ONE PALLETIZED	71

BLOCK NUMBER	LINE	OPERATION	ADD-C,D,E,F,G,MELD	COMPONENTS	CARD NUMBER
*	14.11A1	L	XHSITTRKA10	L L TIME (IN MINUTES) FOR A FLATED TRUCK TO TRANSIT FROM TEMPORARY STAGING (PIER) TO OUTSIDE REPAIR SHOPS	110 111 112
*	INITIAL	XHSTTRKA10	L L TIME (IN MINUTES) FOR A FLATED TRUCK TO TRANSIT FROM TEMPORARY LOCATION (PIER) TO OUTSIDE REPAIR SHOPS	113 114 115	
*	INITIAL	XHSTTRKA15	L L MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF STRADDLE TRUCK	116 117	
*	INITIAL	XHSTTRKA17	L L MAXIMUM NUMBER OF PALLETS THAT STRADDLES TRUCK CAN CARRY	118 119	
*	INITIAL	XHSTTRKA2	L L TIME (IN MINUTES) FOR A STRADDLE TRUCK TO TRANSIT BETWEEN TEMPORARY STAGING (PILE UP AND REPAIR SHOPS	120 121 122	
*	INITIAL	XHSTTRPF62	L L TIME (IN MINUTES) FOR A 4K OR 6K FOKLIFT TO LIFT UP ONE PALLET FOR A STRADDLE TRUCK	123 124	
*	INITIAL	XHSTTRPA2	L L TIME (IN MINUTES) FOR A SIDELOADER TO MOVE AN ELONGATE HEAVY RIPOUT ITEM FROM OUTSIDE REPAIR SHOPS TO INSIDE REPAIR SHOPS	125 126 127	
*	INITIAL	XHSTTRPH47	L L TIME (IN MINUTES) FOR AN EQUAL TO OR GREATER THAN 10K FORKLIFT TO MOVE A NON-ELONGATED HEAVY BULKY RIPOUT ITEM FROM OUTSIDE REPAIR SHOPS TO INSIDE REPAIR SHOPS	128 129 130	
*	INITIAL	XHSTTRP1416	L L TIME (IN MINUTES) FOR AN EQUAL TO OR GREATER THAN 10K FORKLIFT TO UNLOAD ONE PALLETIZED RIPOUT ITEM FROM A FLATED TRUCK OUTSIDE REPAIR SHOPS, MOVE THE PALLETIZED RIPOUT ITEM TO INSIDE REPAIR SHOPS, AND RETURN	131 132 133	
*	INITIAL	XHSTTRP15	L L TIME (IN MINUTES) FOR A 4K OR 6K FOKLIFT TO MOVE ONE PALLETIZED RIPOUT ITEM FROM OUTSIDE REPAIR SHOPS TO INSIDE REPAIR SHOPS AND RETURN	134 135 136	
*	INITIAL	XHSTTRPA60	L L TIME (IN MINUTES) FOR A LESS THAN 4K PALLETIZED RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS	137 138 139	
*	INITIAL	XHSTTRPB60	L L TIME (IN MINUTES) FOR A BETWEEN 4K AND 6K PALLETIZED RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS	140 141 142 143 144	
*	INITIAL	XHSTTRPC60	L L TIME (IN MINUTES) FOR A GREATER THAN 6K PALLETIZED RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS	145 146 147 148 149	
*	INITIAL	XHSTTRPD60	L L TIME (IN MINUTES) FOR AN ELONGATED HEAVY BULKY RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS	150 151 152	
*	INITIAL	XHSTTRP60	L L TIME (IN MINUTES) FOR A NON-ELONGATED HEAVY BULKY RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS	153 154 155	
*			MATRIX DEFINITIONS		156 157 158 159 160 161 162 163 164
1	TABLE	MATRIX M,30,6	COLUMN 1 = HOURS AT WHICH SHIP PREARRIVALS OCCUR (FOR STAGING OF TEMPORARY SERVICES NEAR PIER)		
			COLUMN 2 = NUMBER OF SHIP PREARRIVALS OCCURING AT HOUR SPECIFIED IN COLUMN 1		
			COLUMN 3 = HOURS FOR PREARRIVAL STAGING OF TEMPORARY SERVICES CMTG PIER		

DISPATCHER, MO. 20084 GPS, V76000

CRM GPSS 4/6000 VEF. 1.3 PSR 526 04/14/87 06.06.39. PAGE 6

BLOCK NUMBER	LOC	OPERATION	A,B,C,D,E,F,G,H,I,J	COMPLIN:	CARD NUMBER
*			COLUMN 4 = NUMBER OF PEARLARRIVAL SERVICES INTO PIER AT HULL SPECIFIED IN COLUMN 3		165
*			COLUMN 5 = HOURS AT WHICH SHIP ARRIVALS OCCUR		166
*			COLUMN 6 = NUMBER OF SHIP ARRIVALS OCCURRING AT HOUR SPECIFIED IN COLUMN 5		167
*					168
2	TAB8	MATRIX	H,A,3,6		169
		PON 1	CONTAINS DATA FOR SHIP PEARLARRIVALS		170
		(1,1)	= NUMBER OF PALLETIZED LOADS LESS THAN 4K		171
		(1,2)	= NUMBER OF PALLETIZED LOADS BETWEEN 4K AND 6K		172
		(1,3)	= NUMBER OF PALLETIZED LOADS GREATER THAN 6K		173
		(1,4)	= NUMBER OF HEAVY BULKY LOADS		174
		ROW 2	CONTAINS DATA FOR RIPOUT ITEMS TO BE TRANSFERRED FROM LOWER DECK TO TEMPORARY LOCATION (PIER)		175
		(2,1)	= NUMBER OF PALLETIZED RIPOUT ITEMS LESS THAN 4K		176
		(2,2)	= NUMBER OF PALLETIZED RIPOUT ITEMS BETWEEN 4K AND 6K		177
		(2,3)	= NUMBER OF PALLETIZED RIPOUT ITEMS GREATER THAN 6K		178
		(2,4)	= NUMBER OF HEAVY BULKY RIPOUT ITEMS		179
		ROW 3	CONTAINS DATA FOR RIPOUT ITEMS TO BE TRANSFERRED FROM UPPER DECK TO TEMPORARY LOCATION (PIER)		180
		(3,1)	= NUMBER OF PALLETIZED RIPOUT ITEMS LESS THAN 4K		181
		(3,2)	= NUMBER OF PALLETIZED RIPOUT ITEMS BETWEEN 4K AND 6K		182
		(3,3)	= NUMBER OF PALLETIZED & RIPOUT ITEMS GREATER THAN 6K		183
		(3,4)	= NUMBER OF HEAVY BULKY RIPOUT ITEMS		184
3	PTA8	MATRIX	H,A,7,C		185
		(1,1)	= TOTAL NUMBER OF PALLETIZED LOADS LESS THAN 4K TRANSFERRED NEAR PIER (TEMPORARY SERVICES)		186
		(1,2)	= TOTAL NUMBER OF PALLETIZED LOADS BETWEEN 4K AND 6K TRANSFERRED NEAR PIER (TEMPORARY SERVICES)		187
		(1,3)	= TOTAL NUMBER OF PALLETIZED LOADS GREATER THAN 6K TRANSFERRED NEAR PIER (TEMPORARY SERVICES)		188
		(1,4)	= TOTAL NUMBER OF HEAVY BULKY LOADS TRANSFERRED NEAR PIER (TEMPORARY SERVICES)		189
		(1,5)	= NUMBER OF PALLETIZED LOADS LESS THAN 4K TO BE TRANSFERRED NEAR PIER (TEMPORARY SERVICES)		190
		(1,6)	= NUMBER OF PALLETIZED LOADS BETWEEN 4K AND 6K TO BE TRANSFERRED NEAR PIER (TEMPORARY SERVICES)		191
		(1,7)	= NUMBER OF PALLETIZED LOADS GREATER THAN 6K TO BE TRANSFERRED NEAR PIER (TEMPORARY SERVICES)		192
		(1,8)	= NUMBER OF HEAVY BULKY LOADS TO BE TRANSFERRED NEAR PIER (TEMPORARY SERVICES)		193
		(2,1)	= TOTAL NUMBER OF PALLETIZED LOADS LESS THAN 4K TRANSFERRED ONTO PIER (TEMPORARY SERVICES)		194
		(2,2)	= TOTAL NUMBER OF PALLETIZED LOADS BETWEEN 4K AND 6K TRANSFERRED ONTO PIER (TEMPORARY SERVICES)		195
		(2,3)	= TOTAL NUMBER OF PALLETIZED LOADS GREATER THAN 6K TRANSFERRED ONTO PIER (TEMPORARY SERVICES)		196
		(2,4)	= TOTAL NUMBER OF HEAVY BULKY LOADS TRANSFERRED ONTO PIER (TEMPORARY SERVICES)		197
		(2,5)	= NUMBER OF PALLETIZED LOADS LESS THAN 4K TO BE TRANSFERRED ONTO PIER (TEMPORARY SERVICES)		198
		(2,6)	= NUMBER OF PALLETIZED LOADS BETWEEN 4K AND 6K TO BE TRANSFERRED ONTO PIER (TEMPORARY SERVICES)		199
		(2,7)	= NUMBER OF PALLETIZED LOADS GREATER THAN 6K TO BE TRANSFERRED ONTO PIER (TEMPORARY SERVICES)		200
		(2,8)	= NUMBER OF HEAVY BULKY LOADS TO BE TRANSFERRED ONTO PIER (TEMPORARY SERVICES)		201
					202
					203
					204
					205
					206
					207
					208
					209
					210
					211
					212
					213
					214
					215
					216
					217
					218
					219

**APPENDIX B
WEAPONS SUPPLY MODEL SAMPLE RUN**

ITEM NUMBER	ITEM DESCRIPTION	C4W GP-15 V6000 ITEM NUMBER	Vlk. 1.3 ITEM NUMBER	FSK 526 ITEM NUMBER	DATE INITIALIZED	COMPONENTS	CARD NUMBER
	PLATEAU, GROUP 66 COMMUNITY FORKLIFTS						2
	DELIVERY, GROUP 66 COMMUNITY FORKLIFTS						1
	PLAAX FAU	107					3
	PLAAX QU	205					4
	PLPH JDU	305					5
	PLAM JGU	405					6
	PLA JGU	505					7
	PLAF JGU	605					8
	PLPF JGU	705					9
	PLAR JDU	805					10
	PLER EOU	905					11
	PLED EOU	105					12
	PLAI JDU	115					13
	STORAGE DEFINITIONS						14
	INT-X SET IF THE NUMBER OF INDICATED AIL IS 0 (ZERO)						15
11	CHIN STORAGE 2	GROUP 66 COMMUNITY HANDLERS					16
	PLAAY STORAGE 499	GROUP 216 (4K) COMMUNITY FORKLIFTS (FOR RECEIVING, PACKING AND SHIPPING, AND ISSUING AND STORAGE ALL ADJACENT TO EACH OTHER)					17
2	PLAAX STORAGE 994	GROUP 116 (6K) COMMUNITY FORKLIFTS (FOR RECEIVING, PACKING AND SHIPPING, AND ISSUING AND STORAGE ALL ADJACENT TO BATCH OTHER)					18
3	PLTA STORAG 49	GROUP 2F (4K) COMMUNITY FORKLIFTS (FOR RECEIVING, ADJACENT TO PACKING AND SHIPPING ONLY)					19
4	PLAH STORAGE 999	GROUP 16 (6K) COMMUNITY FORKLIFTS (FOR RECEIVING ADJACENT TO PACKING AND SHIPPING ONLY)					20
5	PLBA STORAGE 16	GROUP 21 (6K) NON-COMMUNITY FORKLIFTS (USED AT RECEIVING)					21
6	PLAA STORAGE 10	GROUP 11 (6K) NON-COMMUNITY FORKLIFTS (USED AT RECEIVING)					22
7	PLER STORAGE 33	GROUP 22 (4K) NON-COMMUNITY FORKLIFTS (USED AT WAREHOUSE)					23
8	PLAP STORAGE 14	GROUP 12 (6K) NON-COMMUNITY FORKLIFTS (USED AT WAREHOUSE)					24
9	PLBD STORAGE 14	GROUP 24 (4K) NON-COMMUNITY FORKLIFTS (USED AT PACKING AND SHIPPING)					25
10	PLAD STORAGE 6	GROUP 14 (6K) NON-COMMUNITY FORKLIFTS (USED AT PACKING AND SHIPPING)					26
11	PLCB STORAGE 2	GROUP 32 FORKLIFTS (GREATER THAN OR EQUAL TO 10K) (USED AT WAREHOUSE)					27
12	PLCE STORAGE 1	GROUP 52 CLANES (EFFICIENT THAN OR EQUAL TO 10K) (USED AT WAREHOUSE)					28
13	PLCA STORAGE 2	GROUP 72 (10K) IDLINGERS (30K) (USED AT WAREHOUSE)					29
14	PLCA STORAGE 13	STRAULF TRUCKS					30
15	STORAGE INITIALIZATIONS						31

WILHELMUS CORNELIUS VAN DER HORST

REMARKS 4/6/00 U 03 1040 1432 5226 05/06/07 140456490 PAGE

CAFÉ

卷之三

PLANT NUMBER	ITEM	IN PARTITION	IN PARTITION	COMMENTS	CARD NUMBER
*	*	*	*	TU UNLOAD A PALLET FROM A TRUCK AT WAREHOUSE. TEMPORARY STAGING AND PUT IT INTO TEMPORARY STOCK	110
INITIAL	X-41141	X-41141	X-41141	TIME IN MINUTES) USE A 4K TON OR FORKLIFT TO MOVE A PALLET FROM MAT-KAL WAREHOUSE TO CONSIDERATION STAGING AND RETURN	111
INITIAL	X-41142	X-41142	X-41142	TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO OFFLOAD A PALLET FROM A TRUCK AT TEMPORARY STAGING (WALDING AREA). SHIFTING, MOVE IT TO TEMPORARY STAGING (PACKING AND SHIPPING) AND RETURN	112
INITIAL	X-41143	X-41143	X-41143	TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO MOVE A PALLET FROM TEMPORARY STAGING (PACKING AND SHIPPING) TO PACKING AND PACKAGING (PACKING AND SHIPPING) AND RETURN	113
INITIAL	X-41144	X-41144	X-41144	TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO MOVE UN-PALLET FROM PACKING AND PACKAGING (PACKING AND SHIPPING) AND RETURN	114
INITIAL	X-41145	X-41145	X-41145	FRACTION OF TIME GROUP 21 FORKLIFT IS CHOOSEN INSTEAD OF GROUP 11 FORKLIFT (AT RECEIVING) WHEN BOTH ARE AVAILABLE EXPRESSED IN PARTS PER THOUSAND	115
INITIAL	X-41146	X-41146	X-41146	FRACTION OF TIME GROUP 11 FORKLIFT IS CHOOSEN INSTEAD OF GROUP 21 FORKLIFT (AT RECEIVING) WHEN BOTH ARE AVAILABLE EXPRESSED IN PARTS PER THOUSAND	116
INITIAL	X-41147	X-41147	X-41147	FRACTION OF TIME GROUP 22 FORKLIFT IS CHOOSEN INSTEAD OF GROUP 12 FORKLIFT (AT WAREHOUSE) WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	117
INITIAL	X-41148	X-41148	X-41148	FRACTION OF TIME GROUP 12 FORKLIFT IS CHOOSEN INSTEAD OF GROUP 22 FORKLIFT (AT WAREHOUSE) WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	118
INITIAL	X-41149	X-41149	X-41149	FRACTION OF TIME GROUP 24 FORKLIFT IS CHOOSEN INSTEAD OF GROUP 14 FORKLIFT (AT PACKING AND SHIPPING) WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	119
INITIAL	X-41150	X-41150	X-41150	FRACTION OF TIME GROUP 14 FORKLIFT IS CHOOSEN INSTEAD OF GROUP 24 FORKLIFT (AT PACKING AND SHIPPING) WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	120
INITIAL	X-41151	X-41151	X-41151	FRACTION OF TIME GROUP 15 FORKLIFT CHOOSEN INSTEAD OF GROUP 16 FORKLIFT (AT RECEIVING) WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	121
INITIAL	X-41152	X-41152	X-41152	FRACTION OF TIME GROUP 16 FORKLIFT CHOOSEN INSTEAD OF GROUP 15 FORKLIFT (AT RECEIVING) WHEN BOTH ARE AVAILABLE (EXPRESSED IN PARTS PER THOUSAND)	122
INITIAL	X-41153	X-41153	X-41153	FRACTION OF TIME STACKER TRUCK IS USED TU CART PALLETS IN-TRUCK OF TRUCK (EXPRESSED IN PARTS PER THOUSAND)	123

BLOCK NUMBER	LOC	OPERATION	DESCRIPTION	COMPLIANT	CARD NUMBER
*	INITIAL	X-SPKPA,50C	FRACTION OF TIME TRUCK IS USED TO CARRY PALLET IN STAGEAC OF STRADDLE TRUCK (EXPRESSED IN PARTS PER THOUSAND)	165	165
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) FOR A TRUCK TO TRANSIT FROM TEMPORARY STAGING (RECEIVING) TO WAREHOUSE TEMPORARY STORAGE	166	167
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) FOR A TRUCK TO TRANSIT FROM MATERIAL RECEIVING TO WAREHOUSE TEMPORARY STORAGE	169	169
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) FOR A TRUCK TO TRANSIT FROM CONSOLIDATION STAGING (ISSUING) TO TEMPORARY STAGING (PACKING AND SHIPPING)	170	171
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) TO PALLETIZE ONE PALLET EQUIVALENT OF CARED	172	172
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) TO PACK AND PACKAGE A HEAVY EULK ITEM AT CONSOLIDATION STAGING (OUTSIDE: WAREHOUSE)	173	173
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) TO PACKAGE ONE PALLETIZED ITEM	174	174
*	INITIAL	X-SPKPA,51S	MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF STRADDLE TRUCK	175	175
*	INITIAL	X-SPKPA,51S	MAXIMUM NUMBER OF PALLETS THAT STRADDLE TRUCK CAN CARRY	176	176
*	INITIAL	X-SPKPA,51S	MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF TRUCK	177	177
*	INITIAL	X-SPKPA,51S	MAXIMUM NUMBER OF PALLETS THAT TRUCK CAN CARRY	178	178
*	INITIAL	X-SPKPA,51S	MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF CONTAINER/CONTAINING TRUCK	179	179
*	INITIAL	X-SPKPA,51S	MAXIMUM NUMBER OF PALLETS THAT CONTAINER/CONTAINING TRUCK CAN CARRY	180	180
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO LOAD A PALLET ONTO A TRUCK OR OFFLOAD A PALLET FROM A TRUCK	181	181
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) FOR A 4K OR 6K FORKLIFT TO POSITION ONE PALLET FOR STADDLE TRUCK	182	182
*	INITIAL	X-SPKPA,51S	TIME (IN MINUTES) FOR A GROUP 52 CHART TO UNLOAD A HEAVY EULK ITEM FROM A TRUCK OR VICE VERSA	183	183
*	INITIAL	X-SPKPA,100J	FRACTION OF PALLETS GOING TO WAREHOUSE USERS WHICH WILL BE PACKED AND SHIPPED TEMPORARY STAGING (PACKING AND SHIPPING)	184	184
*	INITIAL	X-SPKPA,100J	FRACTION OF PALLETS GOING TO WAREHOUSE USERS WHICH ARE NOT USED FOR PACKING AND PACKAGING AND GO TO SHIPPING STAGING (PACKING AND SHIPPING)	185	185
*	INITIAL	X-SPKPA,1	FRACTION OF PALLETS IN PARTS PER THOUSAND	186	186
*	INITIAL	X-SPKPA,1	TIME (IN MINUTES) TO MOVE THE USE OF CRANE TO LOAD HEAVY BULKY ITEMS FROM TRUCK AT WAREHOUSE TEMPORARY STORAGE AND THE USE OF GATE TO MOVE THESE ITEMS FROM WAREHOUSE TEMPORARY STORAGE TO MATERIAL HANDLING	187	187
*	INITIAL	X-SPKPA,1	DELAY TIME (IN MINUTES) BETWEEN THE USE OF MATERIAL HANDLING	188	188

DISPARITIES IN U.S. CULTURE VOLUME 15, NO. 1

UNIVERSITY OF MD. 20004 GPSS V16C00

CXN GPSS V16C00 VER. 1.3 PSF 526 05/04/77 14:45:44. PAGE 6

PLANT LEVEL	LOCUS	UP. STATION	ASPECTS	CONTROLS	COMMS	CARD NUMBER
						275
						276
						277
						278
						279
						280
						281
						282
						283
						284
						285
						286
						287
						288
						289
						290
						291
						292
						293
						294
						295
						296
						297
						298
						299
						300
						301
						302
						303
						304
						305
						306
						307
						308
						309
						310
						311
						312
						313
						314
						315
						316
						317
						318
						319
						320
						321
						322
						323
						324
						325
						326
						327
						328
						329
						325

卷之三

CARD NUMBER	CUMPLANTS	
	DEFINITION	EXPLANATION
(10,1)	NUMBER OF CARGO ITEMS ON TRUCK DESTINED FOR STATION USERS	330
(10,1)	• 0 If truck is not destined to station users	331
(10,1)	• 1 If cargo is centralized	332
(10,2)	NUMBER OF BULKITEMS ARE FULLPALETTIZED	333
(10,2)	• 0 If bulk items are not palletized	334
(10,2)	• 1 If bulk items are palletized	335
(10,3)	SUMMARY OF PALLETS ON PALLET EQUIVALENTS	335
(10,3)	• 0 If truck destined for DIO	336
(10,4)	NUMBER OF PALLETS ON PALLET EQUIVALENTS ON TRUCK DESTINED FOR WAREHOUSE	337
(10,4)	• 0 If truck destined for transhipment	338
(10,5)	NUMBER OF PALLETS ON PALLET EQUIVALENTS ON TRUCK DESTINED FOR WAREHOUSE	339
(10,5)	• 0 If truck destined for warehouse	340
(10,6)	NUMBER OF PALLETS ON PALLET EQUIVALENTS ON TRUCK DESTINED FOR WAREHOUSE	341
(10,6)	• 0 If truck destined for warehouse via automated system	342
(10,6)	• 1 If truck destined for warehouse via automated system	343
(12,1)	NUMBER OF TYPE 2 CARGO ITEMS ON TRUCK	344
(13,1)	NUMBER OF TYPE 3 CARGO ITEMS ON TRUCK	345
(13,1)	• 0 If truck destined for warehouse	346
(13,1)	• 1 If truck destined for warehouse which are amalgamated to go into warehouse	347
(13,2)	NUMBER OF TYPE 3 CARGO ITEMS ON TRUCK WHICH ARE UNAMMELAMATED TO GO INTO WAREHOUSE	348
(13,3)	NUMBER OF TYPE 3 CARGO ITEMS ON TRUCK WHICH ARE AMALGAMATED TO GO INTO WAREHOUSE	349
(4,1)	NUMBER OF PALLETS (TO BE ISSUED FROM WAREHOUSE AS SPECIFIED IN ISSUE DOCUMENT) GOING TO OFF-STATION USERS	350
(4,1)	• 0 If moved to consolidation staging	351
(4,1)	• 1 If moved to automated warehouse	352
(4,2)	NUMBER OF PALLETS (TO BE ISSUED FROM WAREHOUSE AS SPECIFIED IN ISSUE DOCUMENT) GOING TO ON-STATION USERS	353
(4,2)	• 0 If moved to consolidation staging	354
(4,2)	• 1 If moved to automated warehouse	355
(4,3)	NUMBER OF PALLETS (TO BE ISSUED FROM WAREHOUSE AS SPECIFIED IN ISSUE DOCUMENT) GOING TO OFF-STATION USERS	356
(4,3)	• 0 If moved to consolidation staging	357
(4,3)	• 1 If moved to automated warehouse	358
(4,4)	NUMBER OF PALLETS (TO BE ISSUED FROM WAREHOUSE AS SPECIFIED IN ISSUE DOCUMENT) GOING TO ON-STATION USERS	359
(4,4)	• 0 If moved to consolidation staging	360
(4,4)	• 1 If moved to automated warehouse	361
(5,1)	NUMBER OF PALLETS ON PALLET EQUIVALENTS ON EACH TRUCK ARRIVING AT TEMPORARY STAGING (PACKING AND SHIPPING) FLOOR TERRAIN (ALL SUCH CARGO IS ALWAYS GOING TO OFF-STATION USERS)	362
(5,2)	INDICATES WHETHER CARGO EQUIVALENT IN PALLETS IS IN PALLETS OR PALLET EQUIVALENTS	363
(5,2)	• 0 If pallets	364
(5,2)	• 1 If pallet equivalents	365

DISSENGAGED, PREGNANT, & OUT OF PRACTICE 166

CARB NUMBER	OPERATION & LOCATION	ITEM	MATRIX	405-3	COPARTS	
					(1)	(2)
(1)	• NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE DOCUMENT	(101) • NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE DOCUMENT	(101)	305 376	305 376	
(101)	• NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE DOCUMENT	(101) • NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE DOCUMENT	(101)	387 377	387 377	
(102)	• NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE DOCUMENT	(102) • NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE DOCUMENT	(102)	386 390	386 390	
(103)	• NUMBER OF TYPE 3 ITEMS SPECIFIED IN THE DOCUMENT WHICH ARE STORED OUTSIDE WAREHOUSE	(103) • NUMBER OF TYPE 3 ITEMS SPECIFIED IN THE DOCUMENT WHICH ARE STORED OUTSIDE WAREHOUSE	(103)	362 363 364 365 366 367	362 363 364 365 366 367	
(1701)	• NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE WAREHOUSE ITEMS SPECIFIED IN THE DOCUMENT	(1701) • NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE WAREHOUSE ITEMS SPECIFIED IN THE DOCUMENT	(1701)	398 399 400	398 399 400	
(1702)	• NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE WAREHOUSE ITEMS SPECIFIED IN THE DOCUMENT	(1702) • NUMBER OF TYPE 3 PALLETS IN A SPECIFIED ON SITE WAREHOUSE ITEMS SPECIFIED IN THE DOCUMENT	(1702)	401 402 403	401 402 403	
(1703)	• NUMBER OF TYPE 3 ITEMS SPECIFIED IN THE DOCUMENT WHICH ARE STORED OUTSIDE WAREHOUSE (GOING TO OFF-STATION USE(S))	(1703) • NUMBER OF TYPE 3 ITEMS SPECIFIED IN THE DOCUMENT WHICH ARE STORED OUTSIDE WAREHOUSE (GOING TO OFF-STATION USE(S))	(1703)	404 405 406 408 409	404 405 406 408 409	
(11)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY LOCATION (RECEIVING) DESTINED FOR DTO	(11) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY LOCATION (RECEIVING) DESTINED FOR DTO	(11)	410 411	410 411	
(11,1)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY LOCATION (RECEIVING) DESTINED FOR DTO	(11,1) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY LOCATION (RECEIVING) DESTINED FOR DTO	(11,1)	412 413	412 413	
(11,2)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY LOCATION (RECEIVING) DESTINED FOR TRANSHIPMENT	(11,2) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY LOCATION (RECEIVING) DESTINED FOR TRANSHIPMENT	(11,2)	414 415	414 415	
(11,3)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY LOCATION (RECEIVING) DESTINED FOR WAREHOUSE	(11,3) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY LOCATION (RECEIVING) DESTINED FOR WAREHOUSE	(11,3)	416 417	416 417	
(12)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (PACKING AND SHIPPING) (TALL PALLETS HERE ARE GOING TO OFF-STATION USE(S))	(12) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (PACKING AND SHIPPING) (TALL PALLETS HERE ARE GOING TO OFF-STATION USE(S))	(12)	418 419 420 421 422	418 419 420 421 422	
(12,1)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (PACKING AND SHIPPING) (TALL PALLETS HERE ARE GOING TO OFF-STATION USE(S))	(12,1) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (PACKING AND SHIPPING) (TALL PALLETS HERE ARE GOING TO OFF-STATION USE(S))	(12,1)	423 424 425 426	423 424 425 426	
(12,2)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (PACKING AND SHIPPING) (TALL PALLETS HERE ARE GOING TO OFF-STATION USE(S))	(12,2) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (PACKING AND SHIPPING) (TALL PALLETS HERE ARE GOING TO OFF-STATION USE(S))	(12,2)	427 428 429	427 428 429	
(13)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (RECEIVING) DESTINED FOR DTO	(13) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (RECEIVING) DESTINED FOR DTO	(13)	430 431	430 431	
(13,1)	• NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (RECEIVING) DESTINED FOR DTO	(13,1) • NUMBER OF PALLETS CURRENTLY AT TEMPORARY STAGING (RECEIVING) DESTINED FOR DTO	(13,1)	432 433	432 433	
(14)	• TOTAL NUMBER OF PALLETS DESTINED TO TEMPORARY WAREHOUSE	(14) • TOTAL NUMBER OF PALLETS DESTINED TO TEMPORARY WAREHOUSE	(14)	434 435 436	434 435 436	
(14,1)	• NUMBER OF PALLETS DESTINED TO TEMPORARY WAREHOUSE	(14,1) • NUMBER OF PALLETS DESTINED TO TEMPORARY WAREHOUSE	(14,1)	437 438	437 438	

BLOCK NUMBER	ITEM NUMBER	OPERATION DESCRIPTION	Comments:	CARD NUMBER
		HELD-IN COMING INTO TEMPORARY STAGING (PACKING AND SHIPPING) (204 IN)		605
COLUMN 3 = ACCUMULATED NUMBER OF PALLETS GOING FROM TEMPORARY STAGING (PACKING) TO OFF-STATION (204 OUT)				606
COLUMN 4 = ACCUMULATED NUMBER OF PALLETS GOING FROM TEMPORARY STAGING (PACKING) TO WAREHOUSE TEMPORARY STOCKAGE (201 OUT)				607
COLUMN 5 = ACCUMULATED NUMBER OF PALLETS COPING INTO WAREHOUSE TEMPORARY STAGING (PACKING) (202 IN)				608
COLUMN 10 = ACCUMULATED NUMBER OF PALLETS GOING FROM WAREHOUSE TEMPORARY STORAGE INTO MATERIAL WAREHOUSING (AINS)				609
COLUMN 6 = ACCUMULATED NUMBER OF ELONGATED HEAVY BULKY ITEMS GOING INTO WAREHOUSE (202 IN)				610
COLUMN 7 = ACCUMULATED NUMBER OF NON-ELONGATED HEAVY BULKY ITEMS GOING INTO WAREHOUSE (202 IN)				611
COLUMN 8 = ACCUMULATED NUMBER OF HEAVY BULKY ITEMS TO BE STORED OUTSIDE OR WAREHOUSE (202 IN)				612
COLUMN 11 = ACCUMULATED NUMBER OF PLUGGED HEAVY BULKY ITEMS GOING FROM TEMPORARY STORAGE (WAREHOUSE) TO MATERIAL WAREHOUSING (AINS) (202 OUT)				613
COLUMN 12 = ACCUMULATED NUMBER OF NON-ELONGATED HEAVY BULKY ITEMS GOING FROM TEMPORARY STORAGE (WAREHOUSE) TO MATERIAL WAREHOUSING (AINS) (202 OUT)				614
COLUMN 13 = ACCUMULATED NUMBER OF HEAVY BULKY ITEMS STORED OUTSIDE WAREHOUSE (202 OUT)				615
COLUMN 14 = ACCUMULATED NUMBER OF PALLETS COPING INTO CONSOLIDATION STAGING (ISSUING) (40)				616
COLUMN 15 = ACCUMULATED NUMBER OF PALLETS GOING FROM CONSOLIDATION STAGING (ISSUING) TO TEMPORARY STAGING (PACKING AND SHIPPING) VIA STRADDLE TRUCK (202 OUT)				617
COLUMN 16 = ACCUMULATED NUMBER OF HEAVY BULKY ITEMS COMING INTO CONSOLIDATION STAGING (ISSUING) FROM MATERIAL WAREHOUSING (FOR OFF-STATION USERS) (202 IN)				618
COLUMN 19 = ACCUMULATED NUMBER OF HEAVY BULKY ITEMS GOING OUT OF CONSOLIDATION STAGING (ISSUING) TO CUSTOMER (OFF-STATION) (202 OUT)				619
COLUMN 20 = ACCUMULATED NUMBER OF PALLETS (FOR EQUIVALENTS) COMING INTO TEMPORARY STAGING (PACKING AND SHIPPING) FROM TENANTS (204 IN)				620
COLUMN 25 = ACCUMULATED NUMBER OF NON-CONTAINMENT PALLETS GOING FROM SHIPPING STAGING (PACKING AND SHIPPING) TO CUSTOMERS (OFF-STATION) (204 OUT)				621
COLUMN 30 = ACCUMULATED NUMBER OF PALLETS GOING INTO CONTAINERS AT SHIPPING STAGING (PACKING AND SHIPPING) TO CUSTOMERS (OFF-STATION) (204 OUT)				622
COLUMN 20 = ACCUMULATED NUMBER OF PALLETS GOING FROM				623

BLOCK NUMBER	OPERATION NUMBER	DESCRIPTION	COMMENTS	CARD NUMBER
*	*	PALLETS COMING INTO TEMPORARY STAGING (PACKING AND SHIPPING) FROM TEMPORARY LOCATION (RECEIVING)	(204 IN)	605
*	COLUMN 3 =	ACCUMULATED NUMBER OF PALLETS GOING FROM TEMPORARY STAGING (RECEIVING) TO DTO (1201 OUT)	(1201 OUT)	607
*	COLUMN 4 =	ACCUMULATED NUMBER OF PALLETS GOING FROM TEMPORARY STAGING (RECEIVING) TO WAREHOUSE TEMPORARY STORAGE (1201 OUT)	(1201 OUT)	608
*	COLUMN 5 =	ACCUMULATED NUMBER OF PALLETS COMING INTO WAREHOUSE TEMPORARY STORAGE FROM TEMPORARY STAGING (RECEIVING)	(1202 IN)	609
*	COLUMN 10 =	ACCUMULATED NUMBER OF PALLETS COMING FROM WAREHOUSE TEMPORARY STORAGE INTO MATERIAL WAREHOUSING (AINS)	(1202 OUT)	610
*	COLUMN 6 =	ACCUMULATED NUMBER OF ELONGATED HEAVY BULKY ITEMS GOING INTO WAREHOUSE (1202 IN)	(1202 IN)	611
*	COLUMN 7 =	ACCUMULATED NUMBER OF NON-ELONGATED HEAVY BULKY ITEMS GOING INTO WAREHOUSE (1202 IN)	(1202 IN)	612
*	COLUMN 9 =	ACCUMULATED NUMBER OF HEAVY BULKY ITEMS TO 9c STORED OUTSIDE OF WAREHOUSE (1202 IN)	(1202 IN)	613
*	COLUMN 11 =	ACCUMULATED NUMBER OF ELONGATED HEAVY BULKY ITEMS GOING FROM TEMPORARY STORAGE (WAREHOUSE) TO MATERIAL WAREHOUSING (AINS) (1202 OUT)	(1202 OUT)	614
*	COLUMN 12 =	ACCUMULATED NUMBER OF NON-ELONGATED HEAVY BULKY ITEMS GOING FROM TEMPORARY STORAGE (WAREHOUSE) TO MATERIAL WAREHOUSING (AINS) (1202 OUT)	(1202 OUT)	615
*	COLUMN 13 =	ACCUMULATED NUMBER OF HEAVY BULKY ITEMS STORED OUTSIDE WAREHOUSE (1202 OUT)	(1202 OUT)	616
*	COLUMN 14 =	ACCUMULATED NUMBER OF PALLETS COMING INTO MATERIAL WAREHOUSING (1202 IN)	(1202 IN)	617
*	COLUMN 15 =	CONSOLIDATION STAGING (ISSUING) FROM MATERIAL WAREHOUSING (1202 IN)	(1202 IN)	618
*	COLUMN 16 =	ACCUMULATED NUMBER OF HEAVY BULKY ITEMS ISSUED IN THIS CONSOLIDATION STAGING (ISSUING) FROM TRUCK (1202 OUT)	(1202 OUT)	619
*	COLUMN 18 =	ACCUMULATED NUMBER OF HEAVY BULKY ITEMS ISSUED IN CONSOLIDATION STAGING (ISSUING) TO CUSTOMER (OFF-STATION) (1202 OUT)	(1202 OUT)	620
*	COLUMN 19 =	ACCUMULATED NUMBER OF HEAVY BULKY ITEMS ISSUED IN CONSOLIDATION STAGING (ISSUING) TO CUSTOMER (OFF-STATION) (1202 OUT)	(1202 OUT)	621
*	COLUMN 20 =	ACCUMULATED NUMBER OF PALLETS GOING FROM TEMPORARY STAGING (PACKING AND SHIPPING) FROM TRUCKS (1204 IN)	(1204 IN)	622
*	COLUMN 21 =	ACCUMULATED NUMBER OF NON-CERTIFIED PALLETS GOING FROM SHIPPING STAGING (PACKING AND SHIPPING) TO CUSTOMERS (OFF-STATION) (1204 OUT)	(1204 OUT)	623
*	COLUMN 22 =	ACCUMULATED NUMBER OF PALLETS COMING INTO CONTAINERS AT SHIPPING STAGING (PACKING AND SHIPPING) TO CUSTOMERS (OFF-STATION) (1204 OUT)	(1204 OUT)	624
*	COLUMN 23 =	ACCUMULATED NUMBER OF PALLETS GOING FROM SHIPPING STAGING (PACKING AND SHIPPING) TO CUSTOMERS (OFF-STATION) (1204 OUT)	(1204 OUT)	625

INSTANCER NO. 2004 GPSS V/6000

CAP GPS5 V/6000 Ver. 1.3 DSU 525 DSTU 1.7 164549. PAGE 15

ITEM NUMBER	ITEM	OPERATION	ITEMS REMOVED	ITEMS ISSUED	ITEMS REMAINING	CURRENTS	CARD NUMBER
*							660
COLUMN 21 *	CONSOLIDATED STAGING (ISSUING) TO ON-STATION USERS VIA STACOLO TRUCK (1202 QUT)						661
	ACCUMULATED NUMBER OF PALLETS (ENDING FROM CONSOLIDATION STAGING (ISSUING)) TO ON-STATION USERS VIA TRUCK (1202 QUT)						662
COLUMN 26 *	ACCUMULATED NUMBER OF HEAVY BULKY ITEMS GOING FROM MATERIAL WAREHOUSE TO CONSOLIDATION STAGING (FOR ON-STATION USERS) (1202 IN)						663
COLUMN 22 *	ACCUMULATED NUMBER OF HEAVY BULKY ITEM REMOVED FROM WAREHOUSE GOING TO ON-STATION USERS (1202 OUT)						664
COLUMN 23 *	ACCUMULATED NUMBER OF HEAVY BULKY WAREHOUSE GOING TO ON-STATION USERS (1202 OUT)						665
	ITEMS REMOVED FROM WAREHOUSE GOING TO ON-STATION USERS (1202 OUT)						666
COLUMN 24 *	ACCUMULATED NUMBER OF HEAVY BULKY ITEMS OUTSIDE WAREHOUSE GOING TO ON-STATION USERS (1202 OUT)						667
COLUMN 25 *	ACCUMULATED NUMBER OF "COLD AND FOOL ONLY" PALLETS GOING INTO WAREHOUSE TEMPORARY STAGING FROM MATERIAL RECEIVING (1202 IN)						668
COLUMN 27 *	ACCUMULATED NUMBER OF PALLETS CLIPPING INTO TEMPORARY STAGING (PACKING AND SHIPPING) FROM CONSOLIDATION STAGING (ISSUING) VIA STRAKELE TRUCKS (1204 IN)						669
COLUMN 28 *	ACCUMULATED NUMBER OF PALLETS COMING INTO TEMPORARY STAGING (PACKING AND SHIPPING) FROM CONSOLIDATION STAGING (ISSUING) VIA PLATELED TRUCKS (1204 IN)						670
INITIAL	X,5,16	STAGING (ISSUING) VIA PLATELED TRUCKS (1204 IN)					671
		CURRENT UTILIZATION MATRIX					672
							673
							674
							675
							676
							677
							678
							679
							680
							681
							682
							683
							684
							685
							686
							687
							688
							689
INITIAL	M-15TBLA(1,1),0/MHSTBLA(2,1),1						690
INITIAL	*-15TBLA(3,1),2/MHSTBLA(4,1),3						691
INITIAL	*-15TBLA(5,1),4/MHSTBLA(6,1),5						692
INITIAL	*-15TBLA(7,1),6/MHSTBLA(8,1),7						693
INITIAL	1-15TBLA(9,1),5/MHSTBLA(10,1),6						694
INITIAL	M-15TBLA(11,1),12/MHSTBLA(12,1),11						695
INITIAL	M-15TBLA(13,1),12/MHSTBLA(14,1),13						696
INITIAL	*-15TBLA(15,1),14/MHSTBLA(16,1),15						697
INITIAL	*-15TBLA(17,1),15/MHSTBLA(18,1),17						698
INITIAL	*-15TBLA(19,1),16/MHSTBLA(20,1),16						699
INITIAL	M-15TBLA(21,1),20/MHSTBLA(22,1),21						700
INITIAL	*-15TBLA(23,1),22/MHSTBLA(24,1),23						701
INITIAL	M-15TBLA(1,2),21/3/4/MHSTBLA(3-h,2),2						702
INITIAL	M-15TBLA(1,-1),21/3/4/MHSTBLA(11-h,2),2						703
INITIAL	M-15TBLA(17,-1),21/3/4/MHSTBLA(19-2,2),2						704
INITIAL	M-15TBLA(18,-1),21/3/4/MHSTBLA(19-h,2),2						705
INITIAL	M-15TBLA(1,5),12/MHSTBLA(1-h,5),3						706
INITIAL	M-15TBLA(3,5),12/MHSTBLA(2-h,5),1						707
INITIAL	M-15TBLA(11,-3),6/2/MHSTBLA(12-h,3),6						708
INITIAL	M-15TBLA(13,-3),19						709
INITIAL	M-15TBLA(15,-3),4/6/3						710
INITIAL	M-15TBLA(21,-1),16						711
INITIAL	M-15TBLA(3,-5),12/MHSTBLA(12-h,5),1						712
INITIAL	M-15TBLA(11,-3),6/2						713
INITIAL	M-15TBLA(13,-3),6						714

DIMENSION, PITCH, "U. 7000, EPS, V/6000

CKP CPM 3 V/6000 Vft. 1.3 PSk 2/0 05/04/07 14:43:49. PAGE 16

BLOCK NUMBER	VLOC	OP. POSITION	ACTUALS, REFERENCED	COMPLINS	CARD NUMBER
INITIAL		H45TELA(11,7)	1/M45TELA(11,7),2		713
INITIAL		H45TELA(3,7)	3/M45TELA(4,7),2		716
INITIAL		H45TELA(5,7)	6		717
INITIAL		H45TELA(6,7)	/M45TELA(7,7),2		718
INITIAL		H45TELA(7,7)			719
INITIAL		H45TELA(8,7)	/M45TELA(9,7),2		720
INITIAL		H45TELA(9,7)			721
INITIAL		H45TELA(11,7)	17/M45TELA(12,7),2		722
INITIAL		H45TELA(13,7)	19/M45TELA(14,7),2		723
INITIAL		H45TELA(15,7)	22		724
INITIAL		H45TELA(17,7)	1,1		725
INITIAL		H45TELA(4,9)	32/M45TELA(5,9),2		726
INITIAL		H45TELA(5,9)	4/M45TELA(6,9),2		727
INITIAL		H45TELA(6,9)	6,4,12		728
INITIAL		H45TELA(7,9)	2/M45TELA(8,9),2		729
INITIAL		H45TELA(8,9)	4/M45TELA(9,9),2		730
INITIAL		H45TELA(9,9)	5/M45TELA(10,9),2		731
INITIAL		H45TELA(11,9)	10/M45TELA(12,9),2		732
INITIAL		H45TELA(13,9)	12/M45TELA(14,9),2		733
INITIAL		H45TELA(15,9)	14/M45TELA(16,9),2		734
INITIAL		H45TELA(17,9)	16/M45TELA(18,9),2		735
INITIAL		H45TELA(15,6)	19/M45TELA(20,6),2		736
INITIAL		H45TELA(17,6)	20/M45TELA(21,6),2		737
INITIAL		H45TELA(23,6)	22/M45TELA(24,6),2		738
INITIAL		H45TELA(2,26,10),2			739
INITIAL		H45TELA(5,11)	1/M45TELA(6,11),2		740
INITIAL		H45TELA(2,11)	3/M45TELA(2,11),2		741
INITIAL		H45TELA(3,11)	3/M45TELA(4,11),2		742
INITIAL		H45TELA(5,11)	5		743
INITIAL		H45TELA(6,11)	/M45TELA(7,11),2		744
INITIAL		H45TELA(8,11)	11/M45TELA(9,11),2		745
INITIAL		H45TELA(10,11)	14		746
INITIAL		H45TELA(11,11)	17/M45TELA(12,11),2		747
INITIAL		H45TELA(13,11)	19/M45TELA(14,11),2		748
INITIAL		H45TELA(15,11)	22		749
INITIAL		H45TELA(1,25,12),2			750
INITIAL		H45TELA(6,1,-3),2			751
INITIAL		H45TELA(1,12)	1/R45TELA(2,13),2		752
INITIAL		H45TELA(3,12)	3/R45TELA(4,13),2		753
INITIAL		H45TELA(5,12)	6		754
INITIAL		H45TELA(6,12)	9/M45TELA(7,13),2		755
INITIAL		H45TELA(4,13)	11/M45TELA(5,13),2		756
INITIAL		H45TELA(1,13)	14		757
INITIAL		H45TELA(11,13)	17/M45TELA(12,13),2		758
INITIAL		H45TELA(13,13)	19/M45TELA(14,13),2		759
INITIAL		H45TELA(15,13)	22		760
INITIAL		H45TELA(2,15,14),2			761
INITIAL		H45TELA(7,1,-3),2			762
*	VARIABL E -INITIALS				763
1	TOPPA, VARIOUS		1445LTZ04,15,1	TOPPA, TO PALLETIZE A TRUCKLOAD OF CARGO AT RECEIVING	764
2	TOPPA, VARIOUS		X445LTZ04,15,1	TOPPA, TO PALLETIZE A TRUCKLOAD OF CARGO FROM TENANTS ARRIVING AT TEMPORARY	765
					766
					767
					768
					769

DETAILED EQUIPMENT UTILIZATION AS IT EXISTED AT THE END OF CYCLING ALL THE EQUIPMENT, TO CARD NUMBERS IN THE MAIN PART NUMBER LISTING

CMM = CLOTHES MACHINES (CASP 6c) (CARD 17)
 FLPA = 4X FL (CASP 100) 100 CAPACITY: 1.0 L. AT 45° CYCLING & 1.0 L. AT 90° CYCLING (ALL EQUIPMENT) (CASP 16)
 FLAA = 4X FL (CASP 100) 100 CAPACITY: 1.0 L. AT 45° CYCLING & 1.0 L. AT 90° CYCLING (ALL EQUIPMENT) (CASP 22)
 FLBH = 4X FL (CASP 200) 200 CAPACITY: USED AT 45° CYCLING AND SHIPPING (ALL EQUIPMENT) (CASP 26)
 FLBA = 4X FL (CASP 100) 100 CAPACITY: USED AT 45° CYCLING AND SHIPPING (ALL EQUIPMENT) (CASP 25)
 FLBZ = 4X FL (CASP 100) 100 USED AT 45° CYCLING (CASP 32)
 FLBZ = 4X FL (CASP 100) 100 USED AT 45° CYCLING (CASP 34)
 FLFB = 4X FL (CASP 100) 100 USED AT 45° CYCLING (CASP 36)
 FLAC = 4X FL (CASP 100) 100 USED AT 45° CYCLING (CASP 35)
 FLFC = 4X FL (CASP 200) 200 USED AT 45° CYCLING AND SHIPPING (CASP 40)
 FLAF = 4X FL (CASP 100) 100 USED AT PACKING AND SHIPPING (CASP 42)
 FLCB = 10W FL (CASP 32) USED AT HAIR CUTS (CASP 44)
 CMC = 10K CMC (CASP 52) USED AT WASHHOUSE (CASP 46)
 SLCF = SILVERLAKE (CASP 72) USED AT WASHHOUSE (CASP 48)
 STK = STANGL TRUCK

PER EQUIPMENT UTILIZATION (NAVAL SUPPLY CENTER, CHARLESTON)

STORAGE CAPACITY	QUANTITY	AVERAGE NUMBER USED	UTILIZATION	TOTAL NUMBER OF TIMES USED	AVERAGE TIME USED	NUMBER CURRENTLY IN USE	MAXIMUM NUMBER USED
					ITEMS		
SFLC	16	1.033	0.552	66	4.056	2	16
FLAN	35	11.131	0.337	631	0.466	0	33
FLAC	14	4.754	0.340	275	0.246	0	14
FLBU	16	5.692	0.300	476	5.739	2	19
FLAR	6	1.725	0.287	137	6.044	0	6
FLCI	2	0.037	0.019	3	0.000	0	1
CFEF	1	0.623	0.023	10	25.900	1	1
SLG	2	0.117	0.050	14	4.000	0	2
STK	13	5.046	0.381	74	25.833	6	13

TOTAL NUMBER OF PIECES OF EQUIPMENT = 35
 TOTAL EQUIPMENT USED = 106

SINGLE, WITH A SMALL PASSAGE OF ONE OR TWO LINES FOR THIS WUN

UNIVERSITY OF THE MO. 20014 GS-5 VACU

CRM CPSS V/6000 Vt+ 1.0.3 PSH 526 05/04/17 14:45:53. PAGE 58

TPHSA =	4	(CAR) 223) * TIME: (IN MINUTES) FOR GROUP 72 SHIPPED TO PORT MATERIAL IN WAREHOUSE (INPUT)
TPHSA =	4	(CAR) 227) * TIME: (IN MINUTES) FOR GROUP 72 SHIPPED TO MOVE MATERIAL IN WAREHOUSE (OUTPUT)
TPHSA =	5	(CAR) 231) * TIME: (IN MINUTES) FOR GROUP 72 SHIPPED TO MOVE MATERIAL IN WAREHOUSE (OUTPUT)
TPHSA =	5	(CAR) 235) * TIME: (IN MINUTES) FOR GROUP 32 FORKLIFT TO MOVE MATERIAL IN WAREHOUSE (INPUT)
TPHSA =	6	(CAR) 239) * TIME: (IN MINUTES) FOR GROUP 32 FORKLIFT TO MOVE MATERIAL IN WAREHOUSE (INPUT)
TPHSA =	10	(CAR) 243) * TIME: (IN MINUTES) FOR GROUP 32 FORKLIFT TO MOVE MATERIAL IN WAREHOUSE (INPUT)
TPHSA =	30	(CAR) 247) * TIME: (IN MINUTES) FOR GROUP 32 FORKLIFT TO MOVE MATERIAL IN WAREHOUSE (INPUT)
STREC =	40	(CAR) 251) * TIME: (IN MINUTES) FOR GROUP 32 FORKLIFT TO MOVE MATERIAL IN WAREHOUSE (INPUT)
STREN =	40	(CAR) 255) * TIME: (IN MINUTES) FOR GROUP 32 FORKLIFT TO MOVE MATERIAL IN WAREHOUSE (INPUT)
SPATA =	0	(CAR) 259) * 1 IP C-WCLP 72 SHIPPED SUPPORTS STACKING AND PACKAGING = C IF OTHERWISE
SPRIS =	1	(CAR) 263) * 3 IP SPRUF 32 FL SUPPORTS STACKING AND PACKAGING = O IF OTHERWISE
SPOTC =	0	(CAR) 267) * 1 IP 4W/CKL SLOOTS PACKING AND PACKAGING = C IF OTHERWISE
ALTE =	2	(CAR) 271) * 1 IP 4W/CKL SLOOTS PACKING AND PACKAGING = O IF OTHERWISE

• PERTICATIVE FACTOR FOR C-PALLETIZING (IF PALLETS INITIALLY RECEIVING FOR STORAGE

Matrix Table consists of 17 rows found at the indicated card numbers in the main program listing!

(Detailed definitions as follows)

COLUMN 1 (CAR) 270) = NUMBER TRUCKS ARRIVE AT RECEIVING CARRYING LIGHT LULLY/BOXES
COLUMN 2 (CAR) 273) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 1
COLUMN 3 (CAR) 274) = HOURS TRUCKS ARRIVE AT RECEIVING CARRYING FOOD/HAZARDOUS (PALLETS)
COLUMN 4 (CAR) 275) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 3
COLUMN 5 (CAR) 276) = NUMBER TRUCKS ARRIVE AT RECEIVING CARRYING HEAVY BULKY
COLUMN 6 (CAR) 277) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 5
COLUMN 7 (CAR) 278) = HOURS LESS DOCUMENTS ARRIVE AT WAREHOUSE (FGU PALLETS)
COLUMN 8 (CAR) 280) = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 7
COLUMN 9 (CAR) 281) = HOURS TENANT TRUCKS ARRIVE AT PACKING AND SHIPPING
COLUMN 10 (CAR) 287) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 9
COLUMN 11 (CAR) 300) = HOURS ISSUE DOCUMENTS ARRIVE AT WAREHOUSE (FOR HEAVY BULKY TO OFF-STATION)
COLUMN 12 (CAR) 303) = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 11
COLUMN 13 (CAR) 307) = HOURS ISSUE DOCUMENTS ARRIVE AT WAREHOUSE (FOR HEAVY BULKY TO IN-STATION)
COLUMN 14 (CAR) 308) = HOURS ISSUE DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 13

HALFWOOD MATRIX TPLA

ROW/COLUMN	1	2	3	4	5	6	7	8	9	10
1	C	C	C	C	C	C	C	C	C	C
2	1	2	3	2	3	2	2	1	1	3
3	2	2	2	3	3	10	2	2	1	3
4	3	2	2	3	3	18	2	3	1	3
5	4	2	2	3	3	C	C	C	4	3
6	5	2	2	3	3	C	C	C	5	3
7	6	2	2	3	3	C	C	10	6	3
8	7	2	2	3	3	C	C	11	1	3
9	8	2	2	3	3	C	C	13	6	3
10	9	2	2	3	3	C	C	14	1	3
11	10	2	2	3	3	C	C	17	1	10
12	11	2	2	3	3	C	C	18	1	11
13	12	2	2	3	3	C	C	19	1	12
14	13	2	2	3	3	C	C	21	1	13
15	14	2	2	3	3	C	C	22	1	14
16	15	2	2	3	3	C	C	23	0	15
17	16	2	2	3	3	C	C	24	0	16
18	17	2	2	3	3	C	C	25	0	17

DRAFT DOCUMENTATION		DATE 4/15/00		PAGE 59	
ROW/COLUMN	1	2	3	4	5
16	17	18	19	20	21
20	21	20	21	22	23
21	20	21	22	23	24
22	21	20	21	22	23
23	22	21	20	21	22
24	23	22	21	20	21
25	24	23	22	21	20
26	25	24	23	22	21
27	26	25	24	23	22
28	27	26	25	24	23
29	28	27	26	25	24
30	29	28	27	26	25

HALFORD MATRIX TABLE		DATE 4/15/00		PAGE 60	
ROW/COLUMN	1	2	3	4	5
1	1	2	1	1	1
2	2	1	2	1	1
3	3	1	1	2	1
4	4	5	3	3	2
5	5	6	4	4	3
6	6	7	5	5	4
7	7	10	6	6	5
8	8	11	7	7	6
9	9	12	8	8	7
10	10	13	9	9	8
11	11	14	10	10	9
12	12	15	11	11	10
13	13	16	12	12	11
14	14	21	13	13	12
15	15	22	14	14	13
16	16	23	15	15	14
17	17	24	16	16	15
18	18	25	17	17	16
19	19	26	18	18	17
20	20	27	19	19	18
21	21	28	20	20	19
22	22	29	21	21	20
23	23	30	22	22	21
24	24	31	23	23	22
25	25	32	24	24	23
26	26	33	25	25	24
27	27	34	26	26	25
28	28	35	27	27	26
29	29	36	28	28	27
30	30	37	29	29	28

PART II TABLE 2011, 10. USES OF INPUT FIELD VALUES
FOR LOAD DEFINITIONS AND TO PRINT OUT THE INITIATED LOAD NUMBERS IN THE MAIN PROGRAM LISTINGS

ELEMENT (1,1)	(CAKU 329) • INPUT 0 IS ANG M/T CANTAIN-FILLED INPUT 1 IF CARGO IS CONTAINERTIZED
-ELEMENT (1,2)	(CAKU 331) • INPUT 0, 1, LIGHT PALLETTED ITEMS ARE PALLETTIZED; INPUT 1 IF NOT PALLETIZED
-ELEMENT (1,3)	(CAKU 333) • NUMBER OF PALLETS = 1 IF TRANSPORTED
-ELEMENT (1,4)	(CAKU 335) • NUMBER OF PALLETS = 1 IF TRANSPORTED
-ELEMENT (1,5)	(CAKU 337) • NUMBER OF PALLETS = 1 IF TRANSPORTED
-ELEMENT (1,6)	(CAKU 340) • NUMBER OF PALLETS = 1 IF WAREHOUSE VIA AUTOMATED PH:
-ELEMENT (1,7)	(CAKU 343) • NUMBER OF PALLETS = 1 IF WAREHOUSE VIA AUTOMATED PH:
-ELEMENT (1,8)	(CAKU 344) • NUMBER OF PALLETS = 1 IF HEAVY BULKY TO STORE IN WAREHOUSE
-ELEMENT (1,9)	(CAKU 347) • NUMBER OF PALLETS = 1 IF NON-LUMPATED HEAVY BULKY TO STORE IN WAREHOUSE
-ELEMENT (1,10)	(CAKU 350) • NUMBER OF PALLETS = 1 IF HEAVY BULKY TO STORE OUTSIDE WAREHOUSE
-ELEMENT (1,11)	(CAKU 353) • NUMBER OF PALLETS = 1 IF ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS (VIA NON-AUTOMATED SYSTEM)
-ELEMENT (1,12)	(CAKU 358) • NUMBER OF PALLETS = 1 IF ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS (VIA NON-AUTOMATED SYSTEM)
-ELEMENT (1,13)	(CAKU 363) • NUMBER OF PALLETS = 1 IF ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS (VIA AUTOMATED SYSTEM)
-ELEMENT (1,14)	(CAKU 366) • NUMBER OF PALLETS = 1 IF ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS (VIA AUTOMATED SYSTEM)
-ELEMENT (1,15)	(CAKU 373) • NUMBER OF PALLETS = 1 IF ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS (VIA AUTOMATED SYSTEM)
-ELEMENT (1,16)	(CAKU 376) • INPUT 0 IS INPUT 1 IF PALLETTIZED; INPUT 1 IF NOT PALLETIZED
-ELEMENT (1,17)	(CAKU 384) • NUMBER OF PALLETS = 1 IF ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS
-ELEMENT (1,18)	(CAKU 386) • NUMBER OF PALLETS = 1 IF ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS
-ELEMENT (1,19)	(CAKU 382) • NUMBER OF HEAVY BULKY ITEMS STORED OUTSIDE WAREHOUSE GOING TO OFF-STATION USERS
-ELEMENT (1,20)	(CAKU 396) • NUMBER OF HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS
-ELEMENT (1,21)	(CAKU 400) • NUMBER OF NON-LUMPATED HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS
-ELEMENT (1,22)	(CAKU 404) • NUMBER OF HEAVY BULKY ITEMS STORED OUTSIDE WAREHOUSE GOING TO ON-STATION USERS

HALFWORD Palletize Table

ROW/COLUMN	1	2	3	4	5	6
1	C	0	0	3	11	3
2	1*	0	0	C	C	0
3	6	6	6	C	C	0
4	32	4t	6	12	C	0
5	1	1	0	0	0	0
6	2	2	2	0	0	0
7	1	1	1	0	0	0

DATA DOCUMENTATION PAGE 2 CARD 4 (PDS V/6000)

CPU UPS VERSION V/6000 VEF. 1.3 PSR 526 UC/04/87 140450±3.0 PAGE 61

PART X AA11-14. THE FOLLOWING MAPLETS FROM GENERAL EXPLANATION SET CARD NUMBER 641
(DETAILED DEFINITIONS ARE TO BE FOUND AT THE INDIVIDUAL CARD NUMBER IN THE MAIN PROGRAM LISTING)

INPUTS TO RECEIVING
COLUMN 1 = NUMBER OF PALLETS RECEIVING (CARD 544)

OUTPUTS FROM RECEIVING
COLUMN 2 = NUMBER OF PALLETS FROM RECEIVING TO PACKING AND SHIPPING (TRANSSHIPMENT) (CARD 598)

COLUMN 3 = NUMBER OF PALLETS FROM RECEIVING TO TRANSSHIPMENT (CARD 598)

COLUMN 4 = NUMBER OF PALLETS FROM RECEIVING TO SALE (CUST) (CARD 612)

INPUTS TO STAGING

COLUMN 5 = NUMBER OF PALLETS FROM RECEIVING ARRIVING AT WAREHOUSE (CARD 611)

COLUMN 6 = NUMBER OF UNITS OF HEAVY BULKY GOING INTO WAREHOUSE (CARD 617)

COLUMN 7 = NUMBER OF NON-ELONGATED HEAVY BULKY GOING INTO WAREHOUSE (CARD 616)

COLUMN 8 = NUMBER OF HEAVY BULKY SHIPS OUTSIDE WAREHOUSE (CARD 621)

COLUMN 9 = NUMBER OF PALLETS FROM RECEIVING INTO WAREHOUSE (CARD 674)

OUTPUTS FROM STAGING

COLUMN 10 = NUMBER OF PALLETS INTO WAREHOUSE SHIPS (CARD 614)

COLUMN 11 = NUMBER OF ELONGATED HEAVY BULKY INTO WAREHOUSE SHIPS (CARD 623)

COLUMN 12 = NUMBER OF NON-ELONGATED HEAVY BULKY INTO WAREHOUSE SHIPS (CARD 626)

COLUMN 13 = NUMBER OF HEAVY BULKY SHIPPED OUTSIDE WAREHOUSE (CARD 624)

INPUTS TO ISSUING

COLUMN 14 = NUMBER OF PALLETS FROM WAREHOUSE TO BE ISSUED (CARD 631)

COLUMN 15 = NUMBER OF HEAVY BULKY FROM WAREHOUSE TO BE ISSUED FOR OFF-STATION (CARD 642)

COLUMN 16 = NUMBER OF HEAVY BULKY FROM WAREHOUSE TO ON-STATION (CARD 663)

OUTPUTS FROM ISSUING

COLUMN 17 = NUMBER OF PALLETS ISSUED FROM WAREHOUSE TO PACKING AND SHIPPING VIA TRUCK (CARD 634)

COLUMN 18 = NUMBER OF PALLETS ISSUED FROM WAREHOUSE TO STRADLE TRUCK (CARD 638)

COLUMN 19 = NUMBER OF HEAVY BULKY ISSUED FROM WAREHOUSE TO STRADLE TRUCK (CARD 645)

COLUMN 20 = NUMBER OF PALLETS FROM WAREHOUSE TO ON-STATION FOR OFF-STATION USE (CARD 657)

COLUMN 21 = NUMBER OF PALLETS FROM WAREHOUSE TO ON-STATION FOR ON-STATION USE (CARD 660)

COLUMN 22 = NUMBER OF ELONGATED HEAVY BULKY ISSUED FROM WAREHOUSE TO ON-STATION USES (CARD 666)

COLUMN 23 = NUMBER OF NON-ELONGATED HEAVY BULKY ISSUED FROM WAREHOUSE TO ON-STATION USES (CARD 669)

COLUMN 24 = NUMBER OF HEAVY BULKY ISSUED FROM WAREHOUSE TO ON-STATION USES (CARD 672)

INPUTS TO PACKING AND SHIPPING

COLUMN 25 = NUMBER OF PALLETS FROM RECEIVING INTO PACKING AND SHIPPING (TRANSSHIPMENT) (CARD 602)

COLUMN 26 = NUMBER OF PALLETS FROM RECEIVING INTO PACKING AND SHIPPING (CARD 648)

COLUMN 27 = NUMBER OF PALLETS FROM WAREHOUSE INTO PACKING AND SHIPPING (CARD 677)

COLUMN 28 = NUMBER OF PALLETS INTO PACKING AND SHIPPING FROM WAREHOUSE (CARD 680)

OUTPUTS FROM PACKING AND SHIPPING

COLUMN 29 = NUMBER OF NON-CONTAINERIZED PALLETS FROM PACKING AND SHIPPING TO OFF-STATION (CARD 651)

COLUMN 30 = NUMBER OF CONTAINERIZED PALLETS FROM PACKING AND SHIPPING TO OFF-STATION (CARD 654)

HALFWAY MATRIX AAA	ROW/COLUMN	1	2	3	4	5	6	7	8	9	10
1	356	54	127	317	317	12	12	12	54	371	10
2	0	0	0	0	0	0	0	0	0	0	0

TRANSPOSED TIME 2004 GPS 4/6000		GPS 4/6000	VLF. 1.3	PSR 526	05/04/67	16045053.	PAGE 62
HALFWORD MATRIX AAA1							
ROW/COLUMN		?	3	4	5	6	7
1	1	0	0	0	0	0	0
2	0	0	0	0	0	0	0
3	0	1	1	1	1	1	1
4	0	1	1	1	1	1	1
5	0	1	1	1	1	1	1
HALFWORD MATRIX AAA1							
ROW/COLUMN		12	13	14	15	16	17
1	?	0	0	0	0	0	0
2	0	0	0	0	0	0	0
3	0	1	1	1	1	1	1
4	0	1	1	1	1	1	1
5	0	1	1	1	1	1	1
HALFWORD MATRIX AAA1							
ROW/COLUMN		21	22	23	24	25	26
1	62	2	1	1	54	24	26
2	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0

ALILOC	ALOC	UP.ATTN	Abnormal: no Control	Complaint:	CARD NUMBER
ALILOC	ALOC	UP.ATTN	Abnormal: no Control	NSCL FLW CAY 2 TAKT FLW CAY 2	2699 2690
		First	Loss of control		
		Last			

DETAILED EQUIPMENT UTILIZATION AND TIME UTILIZATION AT THE INDICATED CARGO NUMBERS IN THE MAIN PROGRAM LISTING

C4FH • C001A - 1400L-A (GP 65) (CARD 17)
 FLBD • 4K FL (GP 210) COMMUNITY USE AT RECEIVING, PACKAGING, AND ISSUING (ALL ADJACENT) (CARD 16)
 FLAD • 4K FL (GP 110) COMMUNITY USE AT RECEIVING, PACKAGING, AND ISSUING (ALL ADJACENT) (CARD 22)
 SLBH • 4K FL (GP 250) COMMUNITY USE AT RECEIVING, PACKAGING, AND ISSUING (ALL ADJACENT) (CARD 22)
 FLAN • 4K FL (GP 100) COMMUNITY USE AT RECEIVING, PACKAGING, AND SHIPPING (ADJACENT) (CARD 21)
 FLBA • 4W FL (GP 210) USE AT RECEIVING, PACKAGING, AND SHIPPING (ADJACENT) (CARD 24)
 FLAA • 4K FL (GP 111) USE AT RECEIVING, PACKAGING, AND SHIPPING (ADJACENT) (CARD 32)
 FLBB • 4K FL (GP 221) USE AT RECEIVING, PACKAGING, AND SHIPPING (ADJACENT) (CARD 34)
 FLAB • 4K FL (GP 121) USE AT RECEIVING, PACKAGING, AND SHIPPING (ADJACENT) (CARD 36)
 FLBD • 4K FL (GP 241) USE AT RECEIVING, PACKAGING, AND SHIPPING (ADJACENT) (CARD 40)
 FLAD • 4K FL (GP 141) USED AT PACKAGING AND SHIPPING (CARD 42)
 FLCA • 10K L (GP 321) USED AT WAREHOUSE (CARD 44)
 CLCE • 10K CRATE (GP 521) USED AT WAREHOUSE (CARD 46)
 SLGB • SIGNATURE (GP 721) USED AT WAREHOUSE (CARD 48)
 STAK • 10AFCI: YLUCK
 STAK • 10AFCI: YLUCK

PMF EQUIPMENT UTILIZATION (NAVAL SUPPLY CENTER, CHARLESTON)

EQUIPMENT	NUMBER AVAILABLE	AVERAGE NUMBER USED	UTILIZATION	TOTAL NUMBER OF TIMES USED	AVERAGE TIME USED (MINUTES)	NUMBER CURRENTLY IN USE	MAXIMUM NUMBER USED	MAXIMUM CONTENTS
STORAGE	CAPACITY	AVERAGE CONTENTS	UTILIZATION	NUMBER OF TIMES USED	AVERAGE TIME/TRAN	CURRENT CONTENTS		
FLFA	16	9.290	0.561	113	4.084	2	16	
FLBn	33	12.273	0.372	69	6.500	0	33	
FLAE	14	5.216	0.373	26	4.606	0	14	
FLBi	16	5.773	0.364	62	5.998	0	16	
FLAC	6	2.060	0.343	164	6.030	1	19	
FLCE	2	0.062	0.331	5	6.000	1	6	
CLFA	1	0.750	0.750	13	27.692	1	1	
SIGP	2	0.125	0.072	15	4.000	0	2	
STAK	13	5.257	0.407	29	26.217	4	13	

TOTAL NUMBER OF PIECES OF EQUIPMENT • 105
 OVERALL UTILIZATION • 36 PERCENT

which value is equal to zero, then as of now, no entry is found in USM line table
(CIM/USM) for the last number in the numerical last numbers in the main program listing)

TRAL1 =	24	(CARL 29) * NUMBER OF ENTRIES IN COLUMN 1 OF TBLA
TRAL2 =	3	(CARL 01) * NUMBER OF ENTRIES IN COLUMN 3 OF TBLA
TRAL3 =	3	(CARL 11) * NUMBER OF ENTRIES IN COLUMN 5 OF TBLA
TRAL4 =	3	(CARL 22) * NUMBER OF ENTRIES IN COLUMN 7 OF TBLA
TRAL7 =	14	(CARL 03) * NUMBER OF ENTRIES IN COLUMN 9 OF TBLA
TRPLAN =	24	(CARL 04) * NUMBER OF ENTRIES IN COLUMN 11 OF TBLA
TRWALL =	15	(CARL 05) * NUMBER OF ENTRIES IN COLUMN 13 OF TBLA
TRBAL3 =	1*	(CARL 06) * NUMBER OF ENTRIES IN COLUMN 15 OF TBLA
TRBAL4 =	3	(CARL 07) * TIME (IN MINUTES) FOR CONTAINERS MANUFACTURER TO LOAD/UNLOAD CONTAINERS FROM TRUCK
TRAJIA =	0	(CARL 08) * INPUT 1.1 ALL FUNCTIONS ARE ADJACENT TO EACH OTHER INPUT 0 IF OTHERWISE
TRFL =	1	(CARL 09) * INPUT 1 TO USE CLEAVERS FOR CONTAINERS INPUT 0 IF CLEAVERS
TRATA =	0	(CARL 10) * 1.1 IF CNTR 1K USM TO CLEAVER PALETTES FROM F AND S TO OFF-STATION USM 6.0 IF NON-CNTR
TRCN =	700	(CARL 00) * FRACTION OF TIME GROUP 210 FL IS USED INSTEAD OF GROUP 310 FL (AT RECEIVING)
TRCN =	300	(CARL 01) * FRACTION OF TIME GROUP 110 FL IS USED INSTEAD OF GROUP 220 FL (AT RECEIVING)
TRPF =	6	(CARL 02) * TIME (IN MINI FOR A 4K/6K FL TO UNLOAD PALLET FROM TRUCK AT RECEIVING)
TRPTA =	6	(CARL 03) * TIME (IN MINI FOR A 4K/6K FL TO MOVE PALLET FROM RECEIVING TO P AND S AND RETURN
TRPFB =	4	(CARL 04) * TIME (IN MINUTES) FOR A 4K/6K FL TO LOAD PALLET INTO CONTAINER
TRPFC =	4	(CARL 05) * TIME (IN MINUTES) FOR A 4K/6K FL TO MOVE PALLET WITHIN RECEIVING AREA
TRPFD =	5	(CARL 06) * TIME (IN MINI FOR A 4K/6K FL TO MOVE PALLET WITHIN WAREHOUSE (INPUT)
TRPFE =	4	(CARL 07) * TIME (IN MINI FOR A 4K/6K FL TO UNLOAD PALLET FROM TRUCK AT WAREHOUSE
TRPFF =	6	(CARL 08) * TIME (IN MINI FOR A 4K/6K FL TO MOVE PALLET WITHIN WAREHOUSE (OUTPUT))
TRPFG =	4	(CARL 09) * TIME (IN MINUTES) FOR A 4K/6K FL TO UNLOAD PALLET AT P AND S
TRPFI =	4	(CARL 10) * TIME (IN MINUTES) FOR A 4K/6K FL TO MOVE PALLET WITHIN P AND S (TO SHIPPING STG)
TRPIJ =	4	(CARL 11) * TIME (IN MINUTES) FOR A 4K/6K FL TO MOVE PALLET WITHIN P AND S (TO RECEIVING)
TRPJK =	1000	(CARL 12) * FRACTION OF TIME GROUP 21 FL IS USED INSTEAD OF GROUP 11 FL (AT RECEIVING)
TRPJK =	1000	(CARL 13) * FRACTION OF TIME GROUP 11 FL IS USED INSTEAD OF GROUP 21 FL (AT RECEIVING)
TRPJC =	0	(CARL 14) * FRACTION OF TIME GROUP 22 FL IS USED INSTEAD OF GROUP 12 FL (AT WAREHOUSE)
TRPJD =	702	(CARL 15) * FRACTION OF TIME GROUP 12 FL IS USED INSTEAD OF GROUP 22 FL (AT WAREHOUSE)
TRPJE =	298	(CARL 16) * FRACTION OF TIME GROUP 24 FL IS USED INSTEAD OF GROUP 14 FL (AT P AND S)
TRPFI =	760	(CARL 17) * FRACTION OF TIME GROUP 24 FL IS USED INSTEAD OF GROUP 14 FL (AT P AND S)
TRPFOUR =	240	(CARL 18) * FRACTION OF TIME GROUP 24 FL IS USED INSTEAD OF GROUP 14 FL (AT P AND S)
TRPFOUR =	240	(CARL 19) * FRACTION OF TIME GROUP 24 FL IS USED INSTEAD OF GROUP 14 FL (AT P AND S)
TRPFG =	0	(CARL 20) * FRACTION OF TIME GROUP 24 FL IS USED INSTEAD OF GROUP 14 FL (AT P AND S)
TRPFG =	303	(CARL 21) * FRACTION OF TIME GROUP 24 FL IS USED INSTEAD OF GROUP 14 FL (AT P AND S)
TRPFG =	300	(CARL 22) * FRACTION OF TIME GROUP 18 FL IS USED INSTEAD OF GROUP 26 FL (AT RECEIVING)
TRPK =	500	(CARL 23) * FRACTION OF TIME GROUP 12 FL IS USED INSTEAD OF STRADDLE TRUCK
TRPK =	500	(CARL 24) * FRACTION OF TIME GROUP 24 FL IS USED INSTEAD OF STRADDLE TRUCK
TRPK =	15	(CARL 25) * TIME (IN MINUTES) FOR TRUCK TO TRANSIT FROM STAGING (RECEIVING) TO WAREHOUSE
TRPK =	15	(CARL 26) * TIME (IN MINUTES) FOR TRUCK TO TRANSIT FROM MATERIAL RECEIVING TO WAREHOUSE
TRPK =	15	(CARL 27) * TIME (IN MINUTES) FOR TRUCK TO TRANSIT FROM ISSUING TO PACKING AND SHIPPING
TRPLT2 =	1	(CARL 28) * TIME (IN MINUTES) TO FALLENIZE ONE PALLET EQUIVALENT OF CARGO
TRPLT2 =	1	(CARL 29) * TIME (IN MINUTES) TO PACK AND PACKAGE ONE HEAVY BULKY ITEM
TRPKG =	10	(CARL 30) * TIME (IN MINUTES) TO PACKAGE ONE PALLETIZED ITEM
TRPKG =	20	(CARL 31) * TIME (IN MINUTES) TO PACKAGE ONE PALLETIZED ITEM
TRMIN =	7	(CARL 163) * MAXIMUM NUMBER OF PALLETS REQUIRED TO USE STRADDLE TRUCK
TRMAX =	7	(CARL 164) * MAXIMUM NUMBER OF PALLETS CAN CARRY
TRPFA =	4	(CARL 165) * MAXIMUM NUMBER OF PALLETS CARRIED BY TRUCK
TRPTC =	1	(CARL 166) * TIME (IN MINUTES) FOR 4W/6W FL TO LOAD/UNLOAD PALLET FROM TRUCK
TRPHCA =	30	(CARL 167) * TIME (IN MINUTES) FOR A 4K/6K FL TO POSITION PALLET FOR STRADDLE TRUCK
TRPTC =	1000	(CARL 168) * TIME (IN MINUTES) FOR GROUP 52 CHANE 1C LOAD/UNLOAD HEAVY BULKY ITEM FROM TRUCK
TRPFS =	1	(CARL 203) * FRACTION OF PALLETS GOING OFF STATION WHICH NEED PACKAGING
TRPFS =	1	(CARL 207) * FRACTION OF PALLETS GOING OFF STATION WHICH NOT NEED PACKAGING
TRTHA =	1	(CARL 211) * DELAY TIME (IN MINUTES) BETWEEN USE OF GROUP 52 CRANE AND GROUP 72 SIDELOADER
TRTHB =	1	(CARL 217) * DELAY TIME (IN MINUTES) BETWEEN USE OF GROUP 52 CRANE AND GROUP 32 FORKLIFT

UNIVERSITY	PC#	2004 GPPS V/6603
SHAW	4	(CAGC 223) = 144
SHAW	4	(CAKU 227) = 114
SHAW	4	(CAFL 231) = 114
SHAW	6	(CAGT 235) = 114
SHAW	10	(CAGU 236) = 114
SHAW	40	(CACT 262) = 115
SHAW	10	(CACT 264) = 114
SHAW	30	(CACT 267) = 114
SPRIS	0	(CACT 264) = 114
SPRIS	1	(CACT 267) = 114
SPUTN	0	(CAGG 200) = 114
SPUTN	7	(CACT 263) = 114
SPUTN	-	

TABLE I. A COMPARISON OF USED OR FINE INPUT VALUES
DEFINITIONS AND THOSE FOUND AT THE INDICIAL CASE NUMBER IN THE MAIN PROGRAM LISTING

COLUMN 1 (CARD 270) - GROUPS OF TRUCKS ARRIVING AT RECEIVING CARRYING LIGHT BULKY LOAD
 COLUMN 2 (CARD 273) - NUMBER OF TRUCKS ARRIVING AT MOWS SPECIFIED IN COLUMN 1
 COLUMN 3 (CARD 275) - NUMBER OF TRUCKS ARRIVING AT RECEIVING CARRYING FOOD/HAZARDOUS 1
 COLUMN 4 (CARD 279) - NUMBER OF TRUCKS ARRIVING AT MOWS SPECIFIED IN COLUMN 3
 COLUMN 5 (CARD 281) - HOURS TRUCKS ARRIVING AT RECEIVING CARRYING HEAVY BULKY
 COLUMN 6 (CARD 280) - NUMBER OF TRUCKS ARRIVING AT MOWS SPECIFIED IN COLUMN 5
 COLUMN 7 (CARD 281) - GROUPS ISSUED DOCUMENTS ARRIVED AT WAREHOUSE (IFC PALLETS)
 COLUMN 8 (CARD 280) - NUMBER OF ISSUED DOCUMENTS ARRIVING AT MOWS SPECIFIED IN C
 COLUMN 9 (CARD 293) - NUMBER OF TENANT TRUCKS ARRIVING AT PACKING AND SHIPPING
 COLUMN 10 (CARD 267) - NUMBER OF TRUCKS ARRIVING AT MOWS SPECIFIED IN CCLM 9
 COLUMN 11 (CARD 300) - HOURS ISSUED DOCUMENTS ARRIVED AT WAREHOUSE (IFC PULL
 COLUMN 12 (CARD 303) - NUMBER OF ISSUED DOCUMENTS ARRIVING AT MOWS SPECIFIED IN C
 COLUMN 13 (CARD 305) - HOURS ISSUED DOCUMENTS ARRIVING AT WAREHOUSE (FOR HEAVY BULK
 COLUMN 14 (CARD 301) - HOURS ISSUED DOCUMENTS ARRIVING AT MOWS SPECIFIED IN C

69

Table 10. Translators or user defining input values
((C)ELEMENT# L1,L2, L3,L4, L5,L6, L7,L8, L9,L10))

ELEMENT (1,1) (CAFE 329) • INPUT 0 IF CARGO NOT CONTAINING BULKY PRODS INPUT 1 IF CARGO IS CONTAINING BULKY ELEMENT (1,2) (CAFE 331) • INPUT 0 IF LIGHT BULKY PRODS ARE PALLETTIZED INPUT 1 IF NOT PALLETTIZED ELEMENT (1,3) (CAFE 333) • NUMBER OF PALLETS FOR DTO ELEMENT (1,4) (CAFE 335) • NUMBER OF PALLETS FOR TRANSPORT ELEMENT (1,5) (CAFE 337) • NUMBER OF PALLETS IN WAREHOUSE VIA MAN-HOUR ELEMENT (1,6) (CAFE 340) • NUMBER OF PALLETS FOR WAREHOUSE VIA AUTOMATED MHI ELEMENT (1,7,1) (CAFE 343) • NUMBER OF DANGEROUS PALLETS ELEMENT (1,9,1) (CAFE 344) • NUMBER OF DANGEROUS HEAVY BULKY TO STOCK IN WAREHOUSE ELEMENT (1,9,2) (CAFE 347) • NUMBER OF DANGEROUS HEAVY BULKY TO STORE IN WAREHOUSE ELEMENT (1,9,3) (CAFE 350) • NUMBER OF HEAVY BULKY TO STORE OUTSIDE WAREHOUSE ELEMENT (4,1) (CAFE 353) • NUMBER OF PALLETS ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS (VIA NON-AUTOMATED SYSTEM) ELEMENT (4,2) (CAFE 356) • NUMBER OF PALLETS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS (VIA NON-AUTOMATED SYSTEM) ELEMENT (4,3) (CAFE 363) • NUMBER OF PALLETS ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS (VIA AUTOMATED SYSTEM) ELEMENT (4,4) (CAFE 366) • NUMBER OF PALLETS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS (VIA AUTOMATED SYSTEM) ELEMENT (5,1) (CAFE 373) • NUMBER OF PALLETS ARRIVING AT PACKING AND SHIPPING FROM TENANTS ELEMENT (5,2) (CAFE 375) • INPUT 0 IF (5,1) IS PALLETTIZED INPUT 1 IF NOT PALLETTIZED ELEMENT (5,3) (CAFE 378) • NUMBER OF ELIGIBLE HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS ELEMENT (6,2) (CAFE 386) • NUMBER OF NON-ELONGATED HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS ELEMENT (6,3) (CAFE 392) • NUMBER OF HEAVY BULKY ITEMS STORED OUTSIDE WAREHOUSE GOING TO OFF-STATION USERS ELEMENT (7,1) (CAFE 396) • NUMBER OF ELONGATED HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS ELEMENT (7,2) (CAFE 400) • NUMBER OF NON-ELONGATED HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS ELEMENT (7,3) (CAFE 404) • NUMBER OF HEAVY BULKY ITEMS STORED OUTSIDE WAREHOUSE GOING TO ON-STATION USERS

HALFTIME MATRIX TABLE

ROW/COLUMN	1	2	3	4	5	6
1	0	C	C	3	11	3
2	1	C	C	0	0	0
3	6	C	C	0	0	0
4	32	C	C	12	C	C
5	1	1	C	0	C	C
6	2	2	2	0	C	C
7	1	1	1	0	0	0

WATER MARKS THE THICK-OUT PATH IN OUT OF SERIAL TRANSMISSION. SEE CARD NUMBER 5641
FOR ALL OTHER LINES AND TO GET THEM AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING.

INPUTS TO RECEIVING:

COLUMN 1 = NUMBER OF PALLETS FOR RECEIVING (CARD 544)

JUTPUTS FROM RECEIVING:

COLUMN 2 = NUMBER OF PALLETS FROM RECEIVING TO PACKING AND SHIPPING (TRANSSHIPMENT) (CARD 59c)

COLUMN 3 = NUMBER OF PALLETS FROM RECEIVING TO CTU (CARD 60c)

COLUMN 4 = NUMBER OF PALLETS FROM RECEIVING TO WAT-HOUSE (CARD 60a)

INPUTS TO STORAGE:

COLUMN 5 = NUMBER OF PALLETS FROM RECEIVING APPLIED AT WAREHOUSE (CARD 611)

COLUMN 6 = NUMBER OF ELONGATED HEAVY BULKY COMING INTO WAREHOUSE (CARD 617)

COLUMN 7 = NUMBER OF NON-ELONGATED HEAVY BULKY GOING INTO WAREHOUSE (CARD 619)

COLUMN 8 = NUMBER OF HEAVY BULKY STORED CLOSER TO HOUSE (CARD 621)

COLUMN 9 = NUMBER OF PALLETS FOR RECEIVING INTO WAREHOUSE (CARD 674)

JUTPUTS FROM STORAGE:

COLUMN 10 = NUMBER OF PALLETS INTO WAREHOUSE BINS (CARD 614)

COLUMN 11 = NUMBER OF FLUMGATED HEAVY BULKY INTO WAREHOUSE BINS (CARD 623)

COLUMN 12 = NUMBER OF NON-ELONGATED HEAVY BULKY INTO WAREHOUSE BINS (CARD 626)

COLUMN 13 = NUMBER OF HEAVY BULKY STORED OUTSIDE WAREHOUSE (CARD 629)

INPUTS TO ISSUING:

COLUMN 14 = NUMBER OF PALLETS FROM WAREHOUSE TO OFF-STATION (CARD 631)

COLUMN 15 = NUMBER OF HEAVY BULKY FROM WAREHOUSE TO OFF-STATION (CARD 642)

COLUMN 16 = NUMBER OF HEAVY BULKY FROM WAREHOUSE TO ON-STATION (CARD 663)

JUTPUTS FROM ISSUING:

COLUMN 17 = NUMBER OF PALLETS ISSUED FROM WAREHOUSE TO PACKING AND SHIPPING VIA TRUCK (CARD 634)

COLUMN 18 = NUMBER OF PALLETS ISSUED FROM WAREHOUSE TO PACKING AND SHIPPING VIA STRADDLE TRUCK (CARD 636)

COLUMN 19 = NUMBER OF HEAVY BULKY ISSUED FROM WAREHOUSE TO OFF-STATION USERS (CARD 645)

COLUMN 20 = NUMBER OF PALLETS FROM WAREHOUSE TO OFF-STATION VIA STRADDLE TRUCK (CARD 657)

COLUMN 21 = NUMBER OF PALLETS FROM WAREHOUSE TO BE ISSUED FOR ON-STATION VIA TRUCK (CARD 659)

COLUMN 22 = NUMBER OF ELONGATED HEAVY BULKY ISSUED FROM WAREHOUSE TO ON-STATION USERS (CARD 666)

COLUMN 23 = NUMBER OF NON-ELONGATED HEAVY BULKY ISSUED FROM WAREHOUSE TO ON-STATION USERS (CARD 669)

COLUMN 24 = NUMBER OF HEAVY BULKY ISSUED FROM WAREHOUSE TO ON-STATION USERS (CARD 672)

INPUTS TO PACKING AND SHIPPING:

COLUMN 25 = NUMBER OF PALLETS FROM RECEIVING INTO PACKING AND SHIPPING (TRANSSHIPMENT) (CARD 602)

COLUMN 26 = NUMBER OF PALLETS FROM RECEIVING INTO PACKING AND SHIPPING (CARD 646)

COLUMN 27 = NUMBER OF PALLETS FROM RECEIVING INTO PACKING AND SHIPPING VIA STRADDLE TRUCK (CARD 677)

COLUMN 28 = NUMBER OF PALLETS INTO PACKING AND SHIPPING FROM WAREHOUSE (CARD 680)

JUTPUTS FROM PACKING AND SHIPPING:

COLUMN 29 = NUMBER OF CONTAINMENT-RATED PALLETS FROM PACKING AND SHIPPING TO OFF-STATION (CARD 651)

COLUMN 30 = NUMBER OF CONTAINMENT-RATED PALLETS FROM PACKING AND SHIPPING TO OFF-STATION (CARD 654)

HALFWORD MATRIX #444

ROW/COLUMN	1	2	3	4	5	6	7	8	9	10
1	346	54	427	317	317	12	12	54	371	
2	792	10t	776	716	716	24	24	108	624	

0111\SOCH1M. 00. 2006 0955 06000

CHP CPOSS W/6000 VER. 1.3 PSS 526 05/04/67 14.45.57. PAGE 72

DETAILS OF EQUIPMENT UTILIZATIONS AND STOCKS AT THE UTILIZED CARGO NUMBERS IN THE MAIN PROGRAM LISTING

CABIN = CONTAINERS, MANUFACTURED (CAP 61) (CARGO 17)
 CRAY = CRATE (CAP 210); COMMUNITY USED AT RECEIVING, PREDICTED, STOCKAGE, AND ISSUING (ALL ADJACENT) (CARGO 17)
 FLAY = CLOTH (CAP 110); COMMUNITY USED AT RECEIVING, PREDICTED, STOCKAGE, AND ISSUING (ALL ADJACENT) (CARGO 22)
 LPH = 4K LB (CAP 211); COMMUNITY USED AT RECEIVING AND PACKING AND SHIPPING (ADJACENT) (CARGO 26)
 FLAH = 5K LB (CAP 180); COMMUNITY USED AT RECEIVING AND PACKING AND SHIPPING (ADJACENT) (CARGO 29)
 FLRA = 4K LB (CAP 212); USED AT RECEIVING (CARGO 32)
 FLAA = 4K LB (CAP 110); USED AT RECEIVING (CARGO 34)
 FLBF = 4K LB (CAP 221); USED AT BAKERSHOP (CARGO 36)
 FLAB = 4K LB (CAP 121); USED AT WASH-CELL (CARGO 37)
 LBC = 4K LB (CAP 240); USED AT PACKING AND SHIPPING (CARGO 40)
 FLAD = 5K LB (CAP 140); USED AT PACKING AND SHIPPING (CARGO 42)
 FLCB = 10K LB (CAP 321); USED AT BAKERSHOP (CARGO 44)
 CBLG = 10K CRATE (CAP 521); USED AT WASHHOUSE (CARGO 46)
 SLG = SIDE LOADERS (ERP 72); USED AT WASHHOUSE (CARGO 48)
 STOCK = STACKER TRUCK

NAME EQUIPMENT UTILIZATION (NAVAL SUPPLY CENTER, CHARLESTON)

EQUIPMENT	NUMBER AVAILABLE	AVERAGE NUMBER USED	UTILIZATION	TOTAL NUMBER OF TIMES USED	AVERAGE TIME JSR0 (MINUTES)	NUMBER CURRENTLY IN USE	MAXIMUM NUMBER USED
STORAGE:	CAPACITY	AVERAGE CONTENTS	AVERAGE UTILIZATION	INTLTS	AVERAGE TIME TRAN.	CURRENT CONTENTS	MAXIMUM CONTENTS
FIBA	16	5.235	0.577	513	40.555	2	16
FILE	33	12.190	0.369	692	8.455	0	33
FLAR	14	4.975	0.351	262	10.465	0	14
FLDU	19	5.655	0.310	474	5.960	0	19
FLAT	6	1.975	0.324	165	5.745	1	6
FLCP	2	0.050	0.025	4	6.000	0	1
CFET	1	6.750	0.750	13	27.692	1	1
SLBB	2	0.117	0.055	14	4.000	0	2
STRK	13	5.440	0.415	42	26.380	5	13

TOTAL NUMBER OF PIECES OF EQUIPMENT = 105
 OVERALL UTILIZATION = 36 PERCENT

SINGLE VALUE INPUT PARAPETERS AS LISTED BY USED FOR THIS RUN
(DETAILS IN INITIALIZATION OR TELICOUNT AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

REL1 =	24	(CAE0 54) = NUMBER OF ENTITIES IN COLUMN 1 OF TABLE
REL3 =	3	(CAE1 60) = NUMBER IN COLUMN 2 OF TABLE
REL5 =	3	(CAE1 61) = NUMBER OF ENTITIES IN COLUMN 3 OF TABLE
REL7 =	15	(CAE1 62) = NUMBER OF ENTITIES IN COLUMN 4 OF TABLE
RELAC =	24	(CAE1 63) = NUMBER OF ENTITIES IN COLUMN 5 OF TABLE
ITALL =	15	(CAE1 64) = NUMBER OF ENTITIES IN COLUMN 6 OF TABLE
ITALL3 =	15	(CAE1 65) = NUMBER OF ENTITIES IN COLUMN 7 OF TABLE
ADJTA =	3	(CAE1 66) = TIME (IN MINUTES) FOR CONTAINERS TO HANDLE TO QUAY/CARGO LOAD CONTAINER(S) FROM TRUCK
JPFL =	2	(CAE1 67) = INPUT 1 IF ALL FUNCTIONS ARE ADJACENT TO EACH OTHER ELSE INPUT 0 IF OTHERWISE
UNFA =	0	(CAE1 74) = TIME (IN MINUTES) FOR UNLOADING CARGO FROM TRUCK TO Q AND S TO OFF-STATION USES = 0 IF NON-CNTR
ATTEN =	700	(CAE1 75) = FRACTION OF TIME GROUP 210 FL IS USED INSTEAD OF GP/CUP 110 FL (AT RECEIVING)
FLEN =	300	(CAE1 76) = FRACTION OF TIME GROUP 110 FL IS USED INSTEAD OF GROUP 210 FL (AT RECEIVING)
TLP1 =	4	(CAE1 77) = TIME (IN MINUTES) FOR A 4K/6K FL TO UNLOAD PALLET FROM TRUCK AND RETURN (AT RECEIVING)
TRPA =	1	(CAE1 78) = TIME (IN MINUTES) FOR A 4K/6K FL TO UNLOAD PALLET FROM TRUCK AND RETURN (AT RECEIVING)
TRPE =	4	(CAE1 79) = TIME (IN MINUTES) FOR A 4K/6K FL TO LOAD PALLET INTO CONTAINER
TRPF =	4	(CAE0 100) = TIME (IN MINUTES) FOR A 4K/6K FL TO MOVE PALLET WITHIN RECEIVING AREA
TMF0 =	4	(CAE0 104) = TIME (IN MINUTES) FOR A 4K/6K FL TO MOVE PALLET WITHIN WAREHOUSE AREA (INPUT)
TRPF =	4	(CAE0 107) = TIME (IN MINUTES) FOR A 4K/6K FL TO UNLOAD PALLET FROM TRUCK AT WAREHOUSE
TRPF =	4	(CAE0 111) = TIME (IN MINUTES) FOR A 4K/6K FL TO MOVE PALLET WITHIN WAREHOUSE AREA (OUTPUT)
TRPG =	4	(CAE0 114) = TIME (IN MINUTES) FOR A 4K/6K FL TO UNLOAD PALLET AT P AND S
TRPF =	4	(CAE0 115) = TIME (IN MINUTES) FOR A 4K/6K FL TO MOVE PALLET WITHIN P AND S (TO SHIPPING SITE)
TRPJ =	4	(CAE0 122) = TIME (IN MINUTES) FOR A 4K/6K FL TO MOVE PALLET WITHIN P AND S (TO SHIPPING SITE)
XONE =	1,000	(CAE1 126) = FRACTION OF TIME GROUP 21 FL IS USED INSTEAD OF GROUP 21 FL (AT RECEIVING)
YC4F =	0	(CAE0 130) = FRACTION OF TIME GROUP 11 FL IS USED INSTEAD OF GROUP 21 FL (AT RECEIVING)
KING =	702	(CAE0 134) = FRACTION OF TIME GROUP 22 FL IS USED INSTEAD OF GROUP 12 FL (AT WAREHOUSE)
YTG =	26	(CAE0 135) = FRACTION OF TIME GROUP 12 FL IS USED INSTEAD OF GROUP 22 FL (AT WAREHOUSE)
AFTU2 =	760	(CAE0 142) = FRACTION OF TIME GROUP 24 FL IS USED INSTEAD OF GROUP 14 FL (AT P AND S)
YF7L0 =	240	(CAE0 147) = FRACTION OF TIME GROUP 14 FL IS USED INSTEAD OF GROUP 24 FL (AT P AND S)
HEIGHT =	0	(CAE0 152) = FRACTION OF TIME GROUP 26 FL IS USED INSTEAD OF GROUP 18 FL (AT RECEIVING)
YFIGHT =	300	(CAE0 156) = FRACTION OF TIME GROUP 16 FL IS USED INSTEAD OF GROUP 26 FL (AT RECEIVING)
PSTK =	500	(CAE0 160) = FRACTION OF TIME STRADDLE TRUCK IS USED TO CARRY PALLETS INSTEAD OF TRUCK
PTRK =	500	(CAE0 163) = FRACTION OF TIME TRUCK IS USED TO CARRY PALLETS INSTEAD OF STRADDLE TRUCK
TRANS =	15	(CAE0 166) = TIME (IN MINUTES) FOR TRUCK STAGING (RECEIVING) TO WAREHOUSE
TRSD =	15	(CAE1 169) = TIME (IN MINUTES) FOR TRANSIT FROM WAREHOUSE TO MATERIAL RECEIVING
TRANS =	15	(CAE0 172) = TIME (IN MINUTES) FOR TRUCK TO TRANSIT FROM ISSUING TO PACKING AND SHIPPING
TPLTZ =	1	(CAE0 176) = TIME (IN MINUTES) TO PALLETIZE ONE PALLET EQUIVALENT OF CARGO
PKP6A =	10	(CAE0 178) = TIME (IN MINUTES) TO PACK AND PACKAGE ONE HEAVY BULKY ITEM
PKP6D =	20	(CAE0 181) = TIME (IN MINUTES) TO PACKAGE ONE PALLETIZED ITEM
STMIN =	7	(CAE0 193) = MAXIMUM NUMBER OF PALLETS CONTAINED IN TRUCK CAN CARRY
STAX =	9	(CAE0 195) = TIME IN (IN MINUTES) FOR 4K/6K FL TO LOAD/UNLOAD PALLET FROM TRUCK
TKMIN =	5	(CAE0 197) = MAXIMUM NUMBER OF PALLETS STRADDLE TRUCK CAN CARRY
TKMAX =	7	(CAE0 198) = MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF JR TRUCK
STMIN =	5	(CAE0 199) = MAXIMUM NUMBER OF PALLETS REQUIRED FOR USE OF CONTAINER TRUCK
STPax =	7	(CAE0 201) = MAXIMUM NUMBER OF PALLETS CONTAINED IN TRUCK CAN CARRY
TRP6A =	4	(CAE0 205) = TIME IN (IN MINUTES) FOR 4K/6K FL TO LOAD/UNLOAD PALLET FROM TRUCK
TRPFC =	1	(CAE0 206) = TIME (IN MINUTES) FOR A 4K/6K FL TO POSITION PALLET FOR STRACOLE TRUCK
TRMCA =	30	(CAE0 209) = TIME (IN MINUTES) FOR GROUP 52 CRANE TO LOAD/UNLOAD HEAVY SLICK ITEM FROM TRUCK
TRPFS =	100	(CAE0 213) = FRACTION OF PALLETS GOING OUT STATION WHICH NEED PACKING AND PACKAGING
PTFS =	0	(CAE0 207) = FRACTION OF PALLETS GOING OFF STATION WHICH DO NOT NEED PACKING AND PACKAGING
UT4A =	1	DELAY TIME (IN MINUTES) BETWEEN USE OF GROUP 52 CRANE AND GROUP 32 FORKLIFT
UT4B =	1	(CAE0 211) = DELAY TIME (IN MINUTES) BETWEEN USE OF GROUP 52 CRANE AND GROUP 32 FORKLIFT

DISINTEGRATION HUE 2000S GFSS WACCO
 CMM OPS WACCO VPS. 1.3 PSR 526 05/04/87 14:45:57 PAGE 74

IMHSA =	4	(ICAO 223) * 11M (IN PINTLES)	FJ4 GROUP 72 STOOLADAR TO MOVE MATERIAL IN WAREHOUSE (INPUT)
IMHSB =	4	(ICAO 227) * 11M (IN PINTLES)	FJ6 GROUP 72 STOOLADAR TO MOVE MATERIAL IN WAREHOUSE (OUTPUT)
IMHFB =	5	(ICAO 231) * 11M (IN PINTLES)	FJ9 GROUP 32 FUMBLIFT TO MOVE MATERIAL IN WAREHOUSE (INPUT)
IMHFA =	6	(ICAO 235) * 11M (IN PINTLES)	FJ9 GROUP 32 FUMBLIFT TO MOVE MATERIAL IN WAREHOUSE (INPUT)
SINKA =	30	(ICAO 241) * 11P (IN PINTLES)	FJ11 GROUP 72 STOOLADAR TO MOVE MATERIAL IN WAREHOUSE (INPUT)
STNSD =	30	(ICAO 242) * 11M (IN PINTLES)	FJ11 GROUP 72 STOOLADAR TO MOVE MATERIAL IN WAREHOUSE (INPUT)
STNSC =	30	(ICAO 245) * 11M (IN PINTLES)	FJ11 GROUP 72 STOOLADAR TO MOVE MATERIAL IN WAREHOUSE (INPUT)
STNSD =	30	(ICAO 249) * 11M (IN PINTLES)	FJ11 GROUP 72 STOOLADAR TO MOVE MATERIAL IN WAREHOUSE (INPUT)
SPKTA =	0	(ICAO 254) * 11M (IN PINTLES)	FJ11 GROUP 72 STOOLADAR TO MOVE MATERIAL IN WAREHOUSE (INPUT)
SPRTA =	1	(ICAO 256) * 11M (IN PINTLES)	FJ11 GROUP 72 STOOLADAR SUPPORTS PACKING AND PACKAGING = 0 IF OTHERWISE
SPRTC =	0	(ICAO 260) * 11M (IN PINTLES)	FJ11 GROUP 72 STOOLADAR SUPPORTS PACKING AND PACKAGING = U IF OTHERWISE
ALTA =	2	(ICAO 263) * 11M (IN PINTLES)	FJ11 GROUP 72 STOOLADAR SUPPORTS PACKING AND PACKAGING = U IF OTHERWISE

MATRIX TABLE CLASSISTS OF USEF DEFINING INPUT VALUES
 (BY TAIL OF DEFINITIONS AS TO 14 FOUND AT 14 INDICATING CARD NUMBERS IN THE MAIN PROGRAM LISTING)

COLUMN 1 (ICAO 270) = HOURS TRUCKS ARRIVE AT RECEIVING CARRYING LIGHT BULKY/BOXES
COLUMN 2 (ICAO 273) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 1
COLUMN 3 (ICAO 275) = HOURS TRUCKS ARRIVE AT RECEIVING CARRYING FGCD/HAZARDOUS (PALLETS)
COLUMN 4 (ICAO 279) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 3
COLUMN 5 (ICAO 281) = HOURS TRUCKS ARRIVE AT RECEIVING CARRYING HEAVY BULKY
COLUMN 6 (ICAO 284) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 5
COLUMN 7 (ICAO 285) = HOURS DOCUMENTS ARRIVE AT WAREHOUSE (FOR PALLETS)
COLUMN 8 (ICAO 290) = NUMBER OF DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 7
COLUMN 9 (ICAO 293) = HOURS TRUCKS ARRIVE AT RECEIVING CARRYING LIGHT BULKY/BOXES
COLUMN 10 (ICAO 297) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 9
COLUMN 11 (ICAO 300) = HOURS ISSUING DOCUMENTS ARRIVE AT WAREHOUSE (FOR HEAVY BULKY TO OFF-STATION)
COLUMN 12 (ICAO 303) = NUMBER OF DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 11
COLUMN 13 (ICAO 305) = HOURS ISSUING DOCUMENTS ARRIVE AT WAREHOUSE (FCGP HEAVY BULKY TO ON-STATION)
COLUMN 14 (ICAO 307) = NUMBER OF DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 13

HALFORD MATRIX TABLE

POW/COLUMN	1	2	3	4	5	6	7	8	9	10
1	0	3	2	3	2	1	1	1	0	3
2	1	3	10	3	10	2	2	1	1	1
3	2	2	16	3	18	3	3	1	2	3
4	3	2	6	0	6	5	1	3	3	3
5	4	2	6	0	6	6	1	4	3	3
6	5	2	6	0	6	9	1	5	3	3
7	6	2	6	0	6	10	1	6	3	3
8	7	2	6	0	6	11	1	7	3	3
9	8	3	6	0	6	12	1	6	3	3
10	9	3	6	0	6	14	1	9	3	3
11	10	2	6	0	6	17	1	10	3	3
12	11	2	6	0	6	18	1	11	3	3
13	12	2	6	0	6	19	1	12	3	3
14	13	2	6	0	6	21	1	13	3	3
15	14	2	6	0	6	22	1	14	3	3
16	15	2	6	0	6	0	0	15	3	3
17	16	3	6	0	6	0	0	16	3	3
18	17	3	6	0	6	0	0	17	3	3

UNIVERSITY OF TORONTO LIBRARY
HALFLUD MATRIX FILE
20064 GPS5 V/6000

ROW/COLUMN	1	2	3	4	5	6	7	8	9	10
14	1e	2	2	0	0	0	0	0	1e	3
20	1e	2	2	0	0	0	0	0	1e	3
21	20	2	2	0	0	0	0	0	20	3
22	21	2	2	0	0	0	0	0	21	3
23	22	2	2	0	0	0	0	0	22	3
24	23	2	2	0	0	0	0	0	23	3
25	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0

HALFLUD MATRIX FILE

ROW/COLUMN	11	12	13	14
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	4	4	4	4
7	10	10	10	10
8	11	11	11	11
9	13	13	13	13
10	14	14	14	14
11	17	17	17	17
12	17	17	17	17
13	1e	1e	1e	1e
14	21	21	21	21
15	22	22	22	22
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	0	0
24	0	0	0	0
25	0	0	0	0
26	0	0	0	0
27	0	0	0	0
28	0	0	0	0
29	0	0	0	0
30	0	0	0	0

DISPATCHER, EDITION 10, 2004 GPS V/6000

CMM GPSS V/6000 V14.1.3 PSR 526 05/04/87 14:45:57. PAGE 76

WATER LINE CONSISTS OF JUST LEFT INPUT VALUES
(I, I, I, I, I, I, I, I, I, I) IF PNTG AT THE INDICATO CARD NUMBERS IN THE MAIN PROGRAM LISTING)

ELEMENT (1,1) (CAPC 324) = INPUT 0 IN CATCH NET CONTAINING INPUT 1 IF CARGO IS CONTAINING
ELEMENT (1,2) (CARC 331) = INPUT 0 IN LIGHT PULLY/ACKL. AS PALLETS FOR INPUT 1 IF NOT PALLETIZED
ELEMENT (1,3) (CAPC 333) = NUMBER OF PALETS FOR OTD
ELEMENT (1,4) (CARC 335) = NUMBER OF PALETS FOR TRANSSHIPPING
ELEMENT (1,5) (CAPC 340) = NUMBER OF PALETS ON WAREHOUSE VIA AUTOMATED RHC
ELEMENT (1,6) (CARC 341) = NUMBER OF PALETS ISSUED FROM WAREHOUSE VIA AUTOMATED RHC
ELEMENT (2,1) (CAPC 343) = NUMBER OF FLOOR/HAZARDOUS PALETS
ELEMENT (3,1) (CAPC 344) = NUMBER OF HEAVY BULKY TO STOCK IN BAR. HOUSE
ELEMENT (3,2) (CARC 347) = NUMBER OF NON-TRANSHIPPING HEAVY BULKY TO STOCK IN WAREHOUSE
ELEMENT (3,3) (CARC 350) = NUMBER OF HEAVY BULKY TO STORE OUTSIDE WAREHOUSE
ELEMENT (4,1) (CAPC 353) = NUMBER OF PALETS ISSUED FROM BAR. HOUSE GOING TO OFF-STATION USERS (VIA NON-AUTOMATED SYSTEM)
ELEMENT (4,2) (CARC 358) = NUMBER OF PALETS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS (VIA NON-AUTOMATED SYSTEM)
ELEMENT (4,3) (CAPC 363) = NUMBER OF PALETS ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS (VIA AUTOMATED SYSTEM)
ELEMENT (4,4) (CARC 366) = NUMBER OF PALETS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS (VIA AUTOMATED SYSTEM)
ELEMENT (5,1) (CAPC 373) = NUMBER OF PALETS ARRIVING AT PACKING AND SHIPPING FROM TENANTS
ELEMENT (5,2) (CAPC 376) = INPUT 0 IF (5,1) IS PALLETIZED INPUT 1 IF NOT PALLETIZED
ELEMENT (6,1) (CAPC 384) = NUMBER OF TRANSHIPPING HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS
ELEMENT (6,2) (CARC 388) = NUMBER OF NON-TRANSHIPPING HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO OFF-STATION USERS
ELEMENT (6,3) (CAPC 392) = NUMBER OF HEAVY BULKY ITEMS SHIPPED OUTSIDE WAREHOUSE GOING TO OFF-STATION USERS
ELEMENT (7,1) (CAPC 396) = NUMBER OF TRANSHIPPING HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS
ELEMENT (7,2) (CARC 400) = NUMBER OF NON-PALLETIZED HEAVY BULKY ITEMS ISSUED FROM WAREHOUSE GOING TO ON-STATION USERS
ELEMENT (7,3) (CARC 404) = NUMBER OF HEAVY BULKY ITEMS STORED OUTSIDE WAREHOUSE GOING TO ON-STATION USERS

HALFWAY MATRIX TELF

ROW/COLUMN	1	2	3	4	5	6
1	0	0	0	3	11	3
2	1b	c	c	0	0	0
3	c	c	c	0	0	0
4	32	44	c	12	0	0
5	1	1	c	c	0	0
6	6	2	2	0	0	0
7	1	1	1	0	0	0

HALTIX AAA1 IS TWO TRANSPORT MATRIX FOR GENERAL TRANSPORTATION SITE CARD NUMBER 564
 (1) TAII, U.C., INITIONS AP-TG TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

INPUTS TO RECIVING:
 COLUMNS 1 = NUMBER OF PALLETS INIC RECEIVING (CARD 544)

OUTPUTS FROM RECIVING:
 COLUMN 2 = NUMBER OF PALLETS FROM RECEIVING TO PACKING AND SHIPPING (TRANSSHIPMENT) (CARD 598)
 COLUMN 3 = NUMBER OF PALLETS FROM RECEIVING TO INTO (CARD 600)
 COLUMN 4 = NUMBER OF PALLETS RECEIVING TO WAREHOUSE (CARD 601)

INPUTS TO STOCKAGE:

COLUMN 5 = NUMBER OF PALLETS RECEIVING ARRIVING AT WAREHOUSE (CARD 611)
 COLUMN 6 = NUMBER OF LENGTHENED HEAVY PULKY GOING INTO WAREHOUSE (CARD 617)
 COLUMN 7 = NUMBER OF NUMBER-ELONGATED HEAVY BULKY FOUN IN TO WAREHOUSE (CARD 619)
 COLUMN 8 = NUMBER OF HEAVY BULKY STORED ONSTATION WAREHOUSE (CARD 621)
 COLUMN 9 = NUMBER OF PALLETS RECEIVING INTO WAREHOUSE (CARD 674)

OUTPUTS FROM STOCKAGE:

COLUMN 10 = NUMBER OF PALLETS INTO WAREHOUSE BINS (CARD 614)
 COLUMN 11 = NUMBER OF LENGTHENED HEAVY BULKY INTO WAREHOUSE BINS (CARD 623)
 COLUMN 12 = NUMBER OF NUMBER-ELONGATED HEAVY BULKY INTO WAREHOUSE BINS (CARD 626)
 COLUMN 13 = NUMBER OF HEAVY STORED ONSTATION WAREHOUSE (CARD 626)

INPUTS TO ISSUING:

COLUMN 14 = NUMBER OF PALLETS FROM WAREHOUSE TO BE ISSUED (CARD 631)
 COLUMN 15 = NUMBER OF HEAVY BULKY FROM WAREHOUSE TO BE ISSUED FOR OFF-STATION (CARD 642)
 COLUMN 16 = NUMBER OF HEAVY BULKY FROM WAREHOUSE TO BE ISSUED FOR ON-STATION (CARD 663)

OUTPUTS FROM ISSUING:

COLUMN 17 = NUMBER OF PALLETS ISSUED FROM WAREHOUSE TO PACKING AND SHIPPING VIA TRUCK (CARD 634)
 COLUMN 18 = NUMBER OF PALLETS ISSUED FROM WAREHOUSE TO PACKING AND SHIPPING VIA STRADDLE TRUCK (CARD 638)
 COLUMN 19 = NUMBER OF HEAVY BULKY ISSUED FROM WAREHOUSE TO OFF-STATION USER (CARD 645)
 COLUMN 20 = NUMBER OF PALLETS FROM WAREHOUSE TO BE ISSUED FOR ON-STATION VIA STRADDLE TRUCK (CARD 657)
 COLUMN 21 = NUMBER OF PALLETS FROM WAREHOUSE TO BE ISSUED FOR ON-STATION VIA TRUCK (CARD 660)
 COLUMN 22 = NUMBER OF LENGTHENED HEAVY BULKY ISSUED FROM WAREHOUSE TO ON-STATION USERS (CARD 666)
 COLUMN 23 = NUMBER OF LENGTHENED HEAVY BULKY ISSUED FROM WAREHOUSE TO ON-STATION USERS (CARD 669)
 COLUMN 24 = NUMBER OF HEAVY BULKY ISSUED FROM OUTSIDE WAREHOUSE TO ON-STATION USERS (CARD 672)

INPUTS TO PACKING AND SHIPPING:

COLUMN 25 = NUMBER OF PALLETS FROM RECEIVING INTO PACKING AND SHIPPING (TRANSSHIPMENT) (CARD 602)
 COLUMN 26 = NUMBER OF PALLETS FROM TENANTS TO PACKING AND SHIPPING (CARD 641)
 COLUMN 27 = NUMBER OF PALLETS FROM WAREHOUSE INTO PACKING AND SHIPPING VIA STRADDLE TRUCK (CARD 677)
 COLUMN 28 = NUMBER OF PALLETS INIC PACKING AND SHIPPING FROM WAREHOUSE (CARD 600)

OUTPUTS FROM PACKING AND SHIPPING:

COLUMN 29 = NUMBER OF CONTAINERTIZED PALLETS FROM PACKING AND SHIPPING TO OFF-STATION (CARD 651)
 COLUMN 30 = NUMBER OF CONTAINERTIZED PALLETS FROM PACKING AND SHIPPING TO OFF-STATION (CARD 654)

HALF=OFF MATPLY #A1										
RD/CCLPN	1	2	2	4	5	6	7	8	9	10
1	346	54	127	317	317	12	12	12	54	371
2	796	105	276	716	716	24	24	24	105	624

DISTRIBUTED MATRIX AAA1		200X4 GPS5 V/6000		CPLX GPSS V/6000		VLSI 1.0.3		PSR 526		05/04/87		140450570		PAGE	76
ROW/COLUMN		1	2	3	4	5	6	7	8	9	10	11	12		
3	116r	162	420	1109	36	36	36	162	0	0	0	0	0	1271	
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
 HALFWORD MATRIX AAA1															
ROW/COLUMN		11	12	13	14	15	16	17	18	19	20				
1	2	0	100	30	15	92	167	3	238						
2	4	0	1000	60	30	105	215	6	434						
3	7	0	1100	90	45	254	341	11	634						
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
 HALFWORD MATRIX AAA1															
ROW/COLUMN		21	22	23	24	25	26	27	28	29					
1	162	2	1	1	54	24	107	92	226	0					
2	164	2	2	2	106	48	215	185	507	0					
3	261	7	4	4	162	72	341	254	802	0					
4	0	0	0	0	0	0	0	0	0	0					
5	0	0	0	0	0	0	0	0	0	0					

APPENDIX C
SHIP OVERHAUL MODEL SAMPLE RUN

DETAILED EQUIPMENT DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING

FLBA = 4K FL (GPP 21W) LOCATED AT INLET WEAPONS MATERIAL RECEIVING (GPP 21W) LOCATED AT INLET WEAPONS ASSEMBLY AREA (CARD 12)

FLAA = 6W FL (GPP 11W) LOCATED AT INLET WEAPONS ASSEMBLY AREA (CARD 14)

FLBC = 4K FL (GPP 23W) LOCATED AT WEAPONS ASSEMBLY AREA (CARD 10)

FLAC = 6K FL (GPP 13W) LOCATED AT WEAPONS ASSEMBLY AREA (CARD 16)

FLBAY = 4K FL (GPP 210W) LOCATED AT WEAPONS ASSEMBLY AREA (CARD 20)

FLBAA = 4K FL (GPP 211W) LOCATED AT INLET WEAPONS ASSEMBLY AREA (CARD 22)

CMFA = CONTAINERS MANLIR (GPP 61W) USED AT WEAPONS EXPLOSIVE AREA (CARD 28)

CRDA = 4KW CRANE (GPP 41W) USED AT WEAPONS MATERIAL RECEIVING (CARD 30)

CREA = 10K CRANES (GPP 51W) USED AT WEAPONS MATERIAL RECEIVING (CARD 32)

SLHA = 4W SIDELOADERS (GPP 81W) USED AT WEAPONS MATERIAL RECEIVING (CARD 34)

SLGA = 30K SIDELOADERS USED AT WEAPONS MATERIAL RECEIVING (CARD 36)

CHFB = CONTAINER HANDLER (GPP 62W) USED AT HOT CARGO AREA (CARD 38)

CRCB = 4/6K CRANES (GPP 42) USED AT HOT CARGO AREA (CARD 40)

SLHB = 4W SIDELOADERS (GPP 82W) USED AT HOT CARGO AREA (CARD 41)

STAK = STRADDLE TRUCKS (CARD 42)

SLHC = 4W SIDELOADERS (GPP 83W) USED AT BOMB BUILDUP AREA (CARD 43)

CAOC = 4/6K CRANES (GPP 43W) USED AT BOMB BUILDUP AREA (CARD 45)

PER EQUIPMENT UTILIZATION (NAVAL AIR STATION, JACKSONVILLE)

EQUIPMENT	NUMBER AVAILABLE	AVERAGE NUMBER USED	UTILIZATION	TOTAL NUMBER OF TIMES USED	AVERAGE TIME USED (MINUTES)	NUMBER CURRENTLY IN USE	MAXIMUM NUMBER USED	CURRENT CONTENTS	MAXIMUM CONTENTS
STORAGE	CAPACITY	AVERAGE CONTENTS	AVERAGE UTILIZATION	ENTRIES	AVERAGE TIME/TRAN				
FLBA	1	0.440	0.440	22	9.591	0	1		
FLAC	1	0.294	0.294	14	10.071	0	1		
FLBAX	1	0.165	0.165	6	11.125	0	1		
FLBAA	3	0.552	0.184	18	14.722	0	3		
FLAX	3	1.661	0.627	54	16.722	1	3		

TOTAL NUMBER OF PIECES OF EQUIPMENT = 33 PERCENT
OVERALL UTILIZATION = 33 PERCENT

SINGLE VALUE INPUT PARAMETERS AS DEFINED BY USER FOR THIS RUN
(DETAILED DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

TBLA1	-	C	(CARD 57) - NUMBER OF ENTRIES IN COLUMN 1 OF TBLA
TPLA3	-	6	(CARD 56) - NUMBER OF ENTRIES IN COLUMN 3 OF TBLA
TBLA5	-	6	(CARD 53) - NUMBER OF ENTRIES IN COLUMN 5 OF TBLA
TBLA7	-	6	(CARD 60) - NUMBER OF ENTRIES IN COLUMN 7 OF TBLA
TBLA9	-	6	(CARD 61) - NUMBER OF ENTRIES IN COLUMN 9 OF TBLA
TBA11	-	6	(CARD 62) - NUMBER OF ENTRIES IN COLUMN 11 OF TBLA
TBA13	-	6	(CARD 63) - NUMBER OF ENTRIES IN COLUMN 13 OF TBLA
TPCMA	-	0	(CARD 64) - TIME FOR A CONTAINER HANDLE & TO OFFLOAD A CONTAINER FROM A TRUCK
TILMSA	-	0	(CARD 65) - TIME TO LOAD MATERIAL IN TRUCK ONTO SKIDS
ADNE	-	600	(CAAC 69) - FRACTION OF TIME GROUP 21W FORKLIFT IS USED INSTEAD OF GROUP 11W FORKLIFT (AT INERT)
YONE	-	400	(ICARD 73) - FRACTION OF TIME GROUP 11W FORKLIFT IS USED INSTEAD OF GROUP 21W FORKLIFT (AT INERT)
SLPFA	-	4	(CAPC 77) - TIME FOR A 4/6K FORKLIFT TO LOAD/OFFLOAD PALLET ONTO/FROM TRUCK
TLCRA	-	6	(CAPC 80) - TIME FOR A 4/6K CRANE TO LOAD/UNLOAD A NON-FORKLIFTABLE LOAD ONTO/FROM TRUCK
TILCAB	-	0	(CAPC 83) - TIME FOR A 4/6K CRANE TO LOAD/UNLOAD A NON-FORKLIFTABLE LOAD ONTO/FROM TRUCK
DLVNA	-	1	(CAED 66) - 0 IF NON-FORKLIFTABLE LOADS AT INERT TO BE STORED OUTSIDE WAREHOUSE #1 IF INSIDE
THMSA	-	1	(CARD 92) - TIME FOR SOLD TO MOVE NON-PALLET LOAD FROM OUTSIDE WAREHOUSE AT WEPC MAT REC
ALMB	-	1	(CARD 97) - 0 IF PALLETS AT INERT ARE TO BE STORED OUTSIDE WAREHOUSE #1 IF INSIDE WEPC
TMFA	-	4	(CARD 103) - TIME FOR A 4/6K FL TO MOVE A PALLET FROM OUTSIDE TO INSIDE WAREHOUSE AT INERT
TMPP	-	4	(CAPC 108) - TIME FOR A 4/6K FL TO MOVE PALLET FROM INERT WAREHOUSE TO TEMP STAGING (P AND S)
TPPA	-	5	(ICARD 112) - TIME TO PACK AND PACKAGE A PALLET
XTVO	-	50C	(CARD 114) - FRACTION OF TIME GROUP 210b FL IS CHOSEN INSTEAD OF GROUP 110W FL
YTVO	-	50C	(CARD 118) - FRACTION OF TIME GROUP 110W FL IS CHOSEN INSTEAD OF GROUP 211W FL
TRSLB	-	0	(ICARD 122) - TIME FOR SLDR TD TO MOVE NON-FORKLIFTABLE LOAD FROM H.C.A. TO INSIDE WEPC AND RTRN
TTINA	-	6	(ICARD 127) - TIME FOR SLDR TD AND FORKLIFT TO TRANSIT FROM H.C.A./OFFICE TO MAGAZINE AREA
TLFB0	-	12	(ICARD 130) - TIME FOR A 4/6K FL TO UNLOAD PALLET FROM TRUCK, STORE IN MAG AND RETURN TO TRUCK
SPFTA	-	1	(ICARD 134) - 1 IF FORKLIFT USED TO SUPPORT PACKING AND PACKAGING PROCESS; 0 IF OTHERWISE
SPPT0	-	1	(ICARD 137) - 1 IF FORKLIFT USED IN WEAPON ASSEMBLY AT BOMB BUILDUP AREA; 0 IF OTHERWISE
TASVA	-	30	(ICARD 141) - TIME TO ASSEMBLE ONE GROUPING OF WEAPONS AT BOMB BUILDUP AREA
WOLVA	-	200	(ICARD 143) - FRACTION OF WEAPONS TO BE DELIVERED FROM BOMB BUILDUP AREA TO ON-STATION USERS
WCLVB	-	800	(ICARD 147) - FRACTION OF WEAPONS DELIVERED FROM BOMB BUILDUP AREA TO TEMP STAGING (LINE RT WAREHOUSE)
THPFC	-	4	(ICARD 151) - TIME FOR A 4/6K FL TO MOVE PALLET FROM STORAGE TO TEMP STAGING (LINE RT WAREHOUSE) TO P AND S (W.A.s.)
TRRN	-	6	(ICARD 155) - TIME FOR TRUCK TO TRANSIT FROM TEMP STAGING (INERT WAREHOUSE) TO P AND S (W.A.s.)
ATRE	-	0	(ICARD 159) - FRACTION OF TIME GROUP 23W FORKLIFT IS CHOSEN INSTEAD OF GROUP 13W FORKLIFT
YTHRE	-	100G	(ICARD 163) - FRACTION (IF TYPE 13W FORKLIFT) FROM HOT CARGO AREA/OFFICE TO MAGAZINE
OLTPA	-	12	(ICARD 167) - TIME TO MOVE A 4/6K FORKLIFT FROM HOT CARGO AREA/OFFICE TO HOT CARGO AREA
TMPO	-	4	(ICARD 170) - TIME FOR A 4/6K FL TO MOVE PALLET FROM STORAGE (AT MAG) TO TEMP STAGING (AT MAG)
TTRC	-	6	(ICARD 174) - TIME FOR A 4/6K FL AND TRUCK TO GO FROM TEMP STAGING (MAG) TO P AND S (W.A.s.)
TRND	-	12	(ICARD 178) - TIME FOR A 4/6K FORKLIFT TO BE TRUCKED FROM A AND S (W.A.s.) TO HOT CARGO AREA
TMFE	-	4	(ICARD 182) - TIME FOR A 4/6K FL TO MOVE PALLET FROM STORAGE TO TEMP STAGING (LINE RT WAREHOUSE)
TTME	-	16	(ICARD 186) - TIME FOR TRUCK TO GO FROM TEMP STAGING (LINE RT WAREHOUSE) TO BOMB BUILDUP AREA
STRN	-	1	(ICARD 169) - MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF STRADDLE TRUCK
STRX	-	3	(CAPC 191) - MAXIMUM NUMBER OF PALLETS THAT STRADDLE TRUCK CAN CARRY
SKRN	-	1	(ICARD 193) - MINIMUM NUMBER OF PALLETS REQUIRED FOR USE OF FLATBED TRUCK
TKRAX	-	13	(ICARD 195) - MAXIMUM NUMBER OF PALLETS THAT FLATBED TRUCK CAN CARRY
TRPF	-	1	(ICARD 197) - TIME FOR A 4/6K FORKLIFT TO POSITION ONE PALLET FOR STRADDLE TRUCK
TSSTA	-	2	(CAPC 199) - TIME FOR A 4K SIDELOADER TO GO BETWEEN INERT WEPC WAREHOUSE AND BOMB BUILDUP AREA
TSLTB	-	2	(ICARD 022) - TIME FOR A 30K SIDELOADER TO GO BETWEEN INERT WEPC WAREHOUSE AND BOMB BUILDUP AREA
TPFFG	-	6	(ICARD 205) - TIME FOR A 4/6K FORKLIFT TO MOVE PALLET FROM MAGAZINE AND LOAD IT ONTO TRUCK
TRBNF	-	6	(ICARD 208) - TIME FOR TRUCK AND FORKLIFT TO GO FROM MAGAZINES TO BOMB BUILDUP AREA
TRNG	-	12	(ICARD 211) - TIME FOR TRUCK AND FORKLIFT TO GO FROM BOMB BUILDUP AREA TO HOT CARGO AREA
TSUTC	-	2	(ICARD 214) - TIME FOR 4K SIDELOADER TO MOVE LCAD FROM MAC TO BOMB BUILDUP AREA AND RETURN
TCITA	-	2	(ICARD 217) - TIME FOR STRADDLE TRUCK TO GO FROM INERT WEPC WAREHOUSE TO BOMB BUILDUP AREA

PAGE 68

C&M GPSS V/6000 VLP. 1.3 PSR 926 04/14/67 0910.04.

DIMSOUC,BLTW. PR. 2004 GFS5 V/6000

1STTB = 2 ((CARD 200) = TIME) * TIME FOR STADDLE TRUCK TO EG FROM B.O.A. TO ON-STATION USER AND RETURN
 IMSLC = 2 ((CARD 223) = TIME FOR A 4K SIDELOADER TO GO FROM B.O.A. TO ON-STATION USER AND RETURN
 ITRAH = 30 ((CARD 220) = TIME FOR TRUCK TO GO FROM POMO BUILDUP AREA TO ON-STATION USER AND RETURN
 IMPFM = 4 ((CARD 277) = TIME FOR A 4/6K FORKLIFT TO GO FROM POMO BUILDUP AREA TO ON-STATION USER AND SHIPPING
 IMSLD = 2 ((CARD 233) = TIME FOR A 4K SIDELOADER TO MOVE CONSOLIDATED WEAPON FROM B.O.A. TO PACKING AND SHIPPING
 IPPNF = 35 ((CARD 246) = TIME FOR A 4K SIDELOADER TO MOVE CONSOLIDATED WEAPON FROM B.O.A. TO PACKING AND SHIPPING
 ITQNT = 6 ((CARD 230) = TIME FOR A 4/6K FORKLIFT TO GO FROM INERT RECEIVING AREA TO HOT CARGO AREA
 ITRNJ = 6 ((CARD 241) = TIME FOR TRUCK AND 4/6K FL TO GO FROM INERT RECEIVING AREA AND MAGAZINE AREA
 ITRNM = 6 ((CARD 244) = TIME FOR TRUCK AND 4/6K FORKLIFT TO GO EIGHTEEN B.O.A. AND INERT RECEIVING AREA

MATRIX TABA CONSISTS OF LSRN DEFINED INPUT VALUES
 (DETAILED DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

COLUMN 1 (CARD 260) = HOURS TRUCKS ARRIVE AT WEAPONS MATERIAL RECEIVING CARRYING INERT INCOMING MATERIAL
 COLUMN 2 (CARD 265) = NUMBER OF TRUCKS ARRIVING AT HOURS SPECIFIED IN COLUMN 1
 COLUMN 3 (CARD 251) = HOURS VEHICLES ARRIVE AT HOT CARGO AREA/OFFICE CARRYING LIVE EXPLOSIVES
 COLUMN 4 (CARD 292) = NUMBER OF VEHICLES ARRIVING AT HOURS SPECIFIED IN COLUMN 3
 COLUMN 5 (CARD 294) = HOURS ISSUE DOCUMENTS ARRIVE AT INERT WAREHOUSE FOR INERT BULK TO OFF-STATION (ADJACENT TO P AND S)
 COLUMN 6 (CARD 258) = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 5
 COLUMN 7 (CARD 301) = HOURS ISSUE DOCUMENTS ARRIVE AT INERT WAREHOUSE FOR INERT BULK TO OFF-STATION (NOT ADJACENT TO P AND S)
 COLUMN 8 (CARD 304) = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 7
 COLUMN 9 (CARD 307) = HOURS ISSUE DOCUMENTS ARRIVE AT HOT CARGO AREA/OFFICE FOR LIVE EXPLOSIVE BULK TO OFF-STATION
 COLUMN 10 (CARD 310) = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 9
 COLUMN 11 (CARD 312) = HOURS ISSUE DOCUMENTS ARRIVE AT INERT WEAPONS WAREHOUSE FOR MATERIAL TO BOMB BUILDUP AREA
 COLUMN 12 (CARD 317) = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 11
 COLUMN 13 (CARD 319) = HOURS ISSUE DOCUMENTS ARRIVE AT HOT CARGO AREA/OFFICE FOR MATERIAL FROM MAGAZINES TO BOMB BUILDUP AREA
 COLUMN 14 (CARD 323) = NUMBER OF ISSUE DOCUMENTS ARRIVING AT HOURS SPECIFIED IN COLUMN 13

HALFTB/OFF MATRIX TABA

ROW/COLUMN	1	2	3	4	5	6	7	8	9	10
1	0	3	0	2	0	2	0	0	0	1
2	5	3	7	2	2	1	0	0	2	1
3	6	3	6	2	6	2	0	0	6	1
4	13	3	15	2	10	1	0	0	10	1
5	16	3	16	2	16	2	0	0	16	1
6	21	2	23	2	16	1	0	0	16	1
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0

	11	12	13	14
ROW/COLUMN				
1	c	1	c	1
2	2	1	2	1
3	b	1	f	1
4	10	1	10	1
5	16	1	16	1
6	16	1	16	1
7	6	0	c	0
8	0	0	0	0
9	c	0	c	c
10	c	0	c	c

CKM CPSS V/6000 LFF. 1.3 PSP 526 04/14/67 09:10:04. PAGE 69

MATRIX TBLH CONSISTS OF USER DEFINED INPUT VALUES
(DETAILED DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

```

ALPH(1,1) (CARD 326) = 1 IF CARGO IS CONTAINMENTIZED * 0 IF NOT CONTAINMENTIZED (INERT INTO WEAPONS MATERIAL RECEIVING)
ALPH(1,2) (CARD 320) = NUMBER OF PALLETS OR PALETT EQUIVALENTS ON TRUCK (INERT INTO MATERIAL WEAPONS RECEIVING)
ALPH(1,3) (CARD 331) = 1 IF LOADS ARE ON SKIDS * 0 IF NOT ON SKIDS (INERT INTO WEAPONS MATERIAL RECEIVING)
ALPH(1,4) (CARD 333) = NUMBER OF NON-FORKLIFTABLE LOADS LESS THAN OR EQUAL TO 4K ON TRUCK (INERT INTO WEAPONS MATERIAL RECEIVING)
ALPH(1,5) (CARD 335) = NUMBER OF NON-FORKLIFTABLE LOADS GREATER THAN 4K ON TRUCK (INERT INTO WEAPONS MATERIAL RECEIVING)
ALPH(2,1) (CARD 339) = 1 IF CARGO IS CONTAINMENTIZED * 0 IF NOT CONTAINMENTIZED (LIVE INTO HOT CARGO AREA)
ALPH(2,2) (CARD 341) = NUMBER OF PALLETS OR PALETT EQUIVALENTS ON VEHICLE (LIVE INTO HOT CARGO AREA)
ALPH(2,3) (CARD 342) = 1 IF LOADS ARE ON SKIDS * 0 IF NOT ON SKIDS (LIVE INTO HOT CARGO AREA)
ALPH(2,4) (CARD 344) = NUMBER OF NON-FORKLIFTABLE LOADS ON VEHICLE (LIVE INTO HOT CARGO AREA)
ALPH(3,1) (CARD 346) = NUMBER OF PALLETS IN OFF-STATION ISSUE FOR INERT WAREHOUSE ADJACENT TO PACKING AND SHIPPING
ALPH(3,2) (CARD 351) = NUMBER OF PALLETS IN OFF-STATION ISSUE FOR INERT WAREHOUSE NOT ADJACENT TO PACKING AND SHIPPING
ALPH(3,3) (CARD 357) = NUMBER OF PALLETS IN OFF-STATION ISSUE OF LIVE EXPLOSIVE BULK
ALPH(3,4) (CARD 361) = NUMBER OF FORKLIFTABLE LOADS TO GO BY TRUCK (INERT ISSUE TO BOMB BUILDUP AREA)
ALPH(3,5) (CARD 362) = NUMBER OF FORKLIFTABLE LOADS TO GO BY STRAWOLE TRUCK (INERT ISSUE TO BOMB BUILDUP AREA)
ALPH(3,6) (CARD 363) = NUMBER OF FORKLIFTABLE LOADS LESS THAN OR EQUAL TO 4K (INERT ISSUE TO BOMB BUILDUP AREA)
ALPH(3,7) (CARD 364) = NUMBER OF FORKLIFTABLE LOADS GREATER THAN 4K (INERT ISSUE TO BOMB BUILDUP AREA)
ALPH(5,5) (CARD 366) = NUMBER OF FORKLIFTABLE LOADS (LIVE EXPLOSIVE ISSUE TO BOMB BUILDUP AREA)
ALPH(5,6) (CARD 369) = NUMBER OF NON-FORKLIFTABLE LOADS (LIVE EXPLOSIVE ISSUE TO BOMB BUILDUP AREA)

```

HALFWORD MATRIX TBLB

ROW/COLUMN	1	2	3	4	5	6
1	0	4	1	0	0	0
2	C	2	1	0	0	0
3	4	4	0	0	0	0
4	3	0	0	0	0	0
5	12	C	C	0	0	0

MATRIX MWPN CONSISTS OF USER DEFINED INPUT VALUES
(DETAILED DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

```

ALPH(1,1) (CARD 371) = NUMBER OF FORKLIFTABLE LOADS OF INERT MATERIAL IN ONE GROUPING OF ASSEMBLED WEAPONS
ALPH(1,2) (CARD 373) = NUMBER OF NON-FORKLIFTABLE LOADS OF INERT MATERIAL IN ONE GROUPING OF ASSEMBLED WEAPONS
ALPH(1,3) (CARD 375) = NUMBER OF FORKLIFTABLE LOADS OF LIVE EXPLOSIVES IN ONE GROUPING OF ASSEMBLED WEAPONS
ALPH(1,4) (CARD 377) = NUMBER OF NON-FORKLIFTABLE LOADS OF LIVE EXPLOSIVES IN ONE GROUPING OF ASSEMBLED WEAPONS
ALPH(1,5) (CARD 379) = NUMBER OF ASSEMBLED WEAPONS IN ONE GROUPING

```

ROW/COLUMN	1	2	3	4	5
1	1	0	3	0	1

MATRIX 4441 IS THE THROUGHPUT MATRIX (FOR GENERAL EXPLANATION SEE CARD NUMBER 555)
(DETAILED DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

INPUTS TO RECEIVING, ISSUING AND STORAGE:

COLUMN 1 = NUMBER OF PALLETS INTO RECEIVING (CARD 591)
COLUMN 2 = NUMBER OF NON-FORKLIFTABLE LOADS INTO RECEIVING
COLUMN 3 = NUMBER OF LIVE EXPLOSIVE FORKLIFTABLE LOADS INTO HOT CARGO AREA (CARD 597)
COLUMN 4 = NUMBER OF LIVE EXPLOSIVE FORKLIFTABLE LOADS INTO HOT CARGO AREA (CARD 600)
COLUMN 5 = NUMBER OF INERT PALLETS FROM F&DP WAREHOUSE TO BE ISSUED FOR OFF-STATION (CARD 603)
COLUMN 6 = NUMBER OF INERT PALLETS FROM WAREHOUSE TO BE ISSUED TO BOMB BUILDUP AREA (CARD 606)
COLUMN 7 = NUMBER OF NON-FORKLIFTABLE INERT ITEMS FROM WAREHOUSE TO BE ISSUED TO BOMB BUILDUP AREA (CARD 609)
COLUMN 15 = NUMBER OF LIVE EXPLOSIVE PALLETS FROM MAGAZINES TO BE ISSUED FOR OFF-STATION (CARD 633)
COLUMN 16 = NUMBER OF LIVE EXPLOSIVE PALLETS FROM MAGAZINES TO BE ISSUED TO BOMB BUILDUP AREA (CARD 636)
COLUMN 17 = NUMBER OF NON-FORKLIFTABLE LIVE EXPLOSIVE LOADS FROM MAGAZINES TO BE ISSUED FOR BOMB BUILDUP AREA (CARD 639)

JUTPUTS FROM WEAPONS RECEIVING, ISSUING AND STORAGE:

COLUMN 8 = NUMBER OF INERT FORKLIFTABLE LOADS FROM WEAPONS MATERIAL RECEIVING GOING INTO WEAPONS WAREHOUSE (CARD 612)
COLUMN 9 = NUMBER OF INERT NON-FORKLIFTABLE LOADS FROM WEAPONS MATERIAL RECEIVING GOING INTO WEAPONS WAREHOUSE (CARD 615)
COLUMN 10 = NUMBER OF LIVE EXPLOSIVE FORKLIFTABLE LOADS FROM HOT CARGO AREA GOING INTO MAGAZINE (CARD 618)
COLUMN 11 = NUMBER OF LIVE EXPLOSIVE FORKLIFTABLE LOADS FROM HOT CARGO AREA GOING INTO MAGAZINE (CARD 621)
COLUMN 12 = NUMBER OF INERT PALLETS ISSUED FROM WEAPONS MATERIAL RECEIVING GOING INTO MAGAZINE (CARD 624)
COLUMN 13 = NUMBER OF INERT PALLETS FROM INERT WAREHOUSE GOING TO BOMB BUILDUP AREA (CARD 627)
COLUMN 14 = NUMBER OF NON-FORKLIFTABLE INERT LOADS FROM INERT WAREHOUSE GOING TO BOMB BUILDUP AREA (CARD 630)
COLUMN 15 = NUMBER OF LIVE EXPLOSIVE PALLETS FROM MAGAZINES GOING TO PACKING AND SHIPPING FOR OFF-STATION (CARD 642)
COLUMN 16 = NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS FROM MAGAZINES GOING TO BOMB BUILDUP AREA (CARD 646)
COLUMN 19 = NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS FROM MAGAZINES GOING TO BOMB BUILDUP AREA (CARD 649)
COLUMN 20 = NUMBER OF NON-FORKLIFTABLE LIVE EXPLOSIVE LOADS FROM MAGAZINES GOING TO BOMB BUILDUP AREA (CARD 649)

INPUTS TO CONSOLIDATION WEAPONS HANDLING:

COLUMN 21 = NUMBER OF LIVE EXPLOSIVE PALLETS ISSUED FROM WEAPONS ENTRING PACKING AND SHIPPING FOR OFF-STATION (CARD 652)
COLUMN 22 = NUMBER OF INERT PALLETS COMING INTO BOMB BUILDUP AREA FROM INERT WAREHOUSE (CARD 656)
COLUMN 23 = NUMBER OF NON-FORKLIFTABLE INERT LOADS LEAVING INERT WAREHOUSE GOING TO BOMB BUILDUP AREA (CARD 659)
COLUMN 24 = NUMBER OF FORKLIFTABLE LIVE EXPLOSIVE LOADS COMING INTO BOMB BUILDUP AREA FROM MAGAZINES (CARD 662)
COLUMN 25 = NUMBER OF NON-FORKLIFTABLE LIVE EXPLOSIVE LOADS COMING INTO BOMB BUILDUP AREA FROM MAGAZINES (CARD 665)

JUTPUTS FROM CONSOLIDATION WEAPONS HANDLING:

COLUMN 26 = NUMBER OF LIVE EXPLOSIVE PALLETS ISSUED IN BULK LEAVING PACKING AND SHIPPING FOR OFF-STATION (CARD 666)
COLUMN 27 = NUMBER OF FORKLIFTABLE WEAPONS LEAVING BOMB BUILDUP AREA FOR ON-STATION (CARD 671)
COLUMN 28 = NUMBER OF NON-FORKLIFTABLE WEAPONS LEAVING BOMB BUILDUP AREA FOR ON-STATION (CARD 674)
COLUMN 29 = NUMBER OF FORKLIFTABLE WEAPONS LEAVING BOMB BUILDUP AREA FOR OFF-STATION (CARD 677)
COLUMN 30 = NUMBER OF NON-FORKLIFTABLE WEAPONS LEAVING BOMB BUILDUP AREA FOR OFF-STATION (CARD 680)

HALFWAY MATRIX AAA1

6 COLUMN	1	2	3	4	5	6	7	8	9	10
1	24	9	8	0	12	24	0	24	0	0
2	48	0	16	0	24	48	0	48	0	0
3	72	0	24	0	36	72	0	72	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0

MD-R194 125

USER'S MANUAL AND ANALYSIS PROCEDURES FOR THE MATERIAL
HANDLING EQUIPMENT SIMULATION MODELS(U) DAVID TAYLOR
RESEARCH CENTER BETHESDA MD P E FRIEDENBERG ET AL.

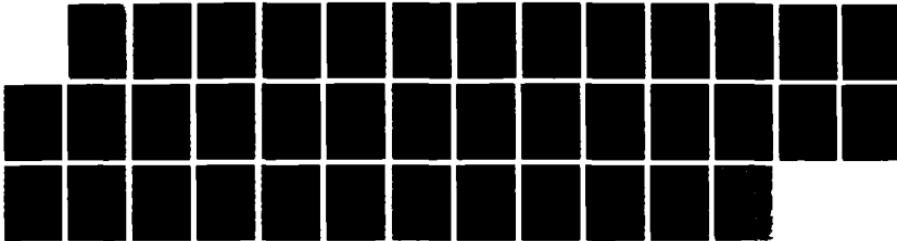
2/2

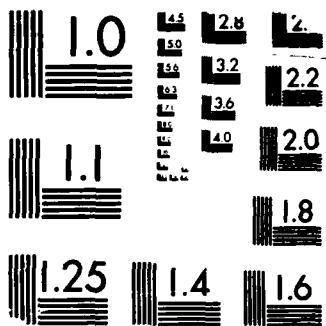
UNCLASSIFIED

MAR 88 DTRC-88/008

F/G 15/5

NL





MICROCOPY RESOLUTION TEST CHART
NBS 1963-A

DIMSOCEITH, PD, ZG084, GRSS V/6000
HALFWORD MATRIX AAA]

		CARM GPSS V/6000	VER. 1.3	PSR 526	04/14/87	04.16.06*	PAGE	72		
ROW/COLUMN	11	12	13	14	15	16	17	18	19	20
1	5	12	24	6	6	16	0	6	16	0
2	13	24	48	12	36	0	12	36	54	0
3	21	16	72	0	16	54	0	18	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0

HALFWORD MATRIX AAA]

		CARM GPSS V/6000	VER. 1.3	PSR 526	04/14/87	04.16.06*	PAGE	72		
ROW/COLUMN	21	22	23	24	25	26	27	28	29	30
1	6	24	18	6	6	12	1	1	3	7
2	12	48	36	36	36	12	1	1	1	10
3	18	72	54	54	54	18	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0

DETAILED EQUIPMENT DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING
 EQUIPMENT NOT ASSIGNED TO REPAIR SHOPS ARE LOCATED IN AROUND THE PIER AREA

FL0A = 4W FORKLIFTS (GROUP 21Y) (CARD 4)
 FLAA = 6W FORKLIFTS (GROUP 21Y) (CARD 5)
 FLCA = EQUAL TO OR GREATER THAN 10K FORKLIFTS (GROUP 31Y) (CARD 6)
 FLCB = EQUAL TO OR GREATER THAN 10K FORKLIFTS (GROUP 32Y) ASSIGNED TO REPAIR SHOPS (CARD 8)
 CREA = EQUAL TO OR GREATER THAN 10K CRANES (GROUP 51Y) (CARD 10)
 CREB = EQUAL TO OR GREATER THAN 10K CRANES (GROUP 52Y) ASSIGNED TO REPAIR SHOPS (CARD 11)
 STMIA = STRADDL. TRUCKS (GROUP 51Y) (CARD 13)
 FLAB = 6W FORKLIFTS (GROUP 12Y) ASSIGNED TO REPAIR SHOPS (CARD 14)
 FLBB = 4W FORKLIFTS (GROUP 22Y) ASSIGNED TO REPAIR SHOPS (CARD 16)
 SL6B = SIDELOADERS (GROUP 72Y) ASSIGNED TO REPAIR SHOPS (CARD 16)

PME EQUIPMENT UTILIZATION

EQUIPMENT	NUMBER AVAILABLE	AVERAGE NUMBER USED	UTILIZATION	TOTAL NUMBER OF TIMES USED	AVERAGE TIME USED (MINUTES)	CURRENTLY IN USE	NUMBER CURRENTLY IN USE	MAXIMUM NUMBER USED	MAXIMUM CONTENTS
STOPAGE	CAPACITY	AVERAGE CONTENTS	AVERAGE UTILIZATION	ENTRIES	AVERAGE TIME/TRAN	CURRENT CONTENTS			
FLBA	57	23.964	0.421	622	18.516	0	57		
FLAA	36	15.077	0.419	619	17.272	0	36		
FLCA	27	10.204	0.378	514	5.328	0	27		
FICB	15	5.375	0.625	90	50.000	15	15		
CREA	2	1.221	0.610	408	1.436	0	2		
CREB	4	0.417	0.104	20	10.000	0	4		
FLAB	25	15.625	0.625	150	50.000	25	25		
FLBB	49	7.790	0.159	73	49.653	13	13		

TOTAL NUMBER OF PIECES OF EQUIPMENT = 221
 OVERALL UTILIZATION = 37 PERCENT

SINGLE VALUED INPUT PARAMETERS AS DEFINED BY USR FOR THIS RUN
(DETAILED DEFINITIONS AND LOCATIONS ARE FOUND AT THE INDICATIVE CARD NUMBERS IN THE MAIN PROGRAM LISTING)

```

TBLA1 = 1 (CARD 251 - NUMBER OF UNITS IN COLUMN 1 OF TBLA
TBLA2 = 1 (CARD 261 - NUMBER OF UNITS IN COLUMN 3 OF TBLA
TBLA3 = 1 (CARD 271 - NUMBER OF UNITS IN COLUMN 5 OF TBLA
TPPEA = 7 (CARD 281 - TIME FOR A 4/6/10K FL TO TRANSFER PALLETIZED LOAD (TEMPORARY SERVICES) NEAR PIER
TPPEB = 7 (CARD 311 - TIME FOR A 4/6/10K FL TO TRANSFER PALLETIZED LOAD (TEMPORARY SERVICES) ONTO PIER
TPPEC = 30 (CARD 341 - TIME FOR A 4/6/10K FL TO CONNECT PALLETIZED LOAD (TEMPORARY SERVICES) TO SHIP
TPPFD = 7 (CARD 371 - TIME FOR 4/6/10K FL TO MOVE PALLETIZED RIPOUT ITEM FROM LWR DECK TO TEMP LOC (PIER)
TPPFE = 7 (CARD 411 - TIME FOR 4/6/10K FL TO MOVE PALLETIZED RIPOUT ITEM FROM TEMP LOC TO TEMP STG (PIER)
TPMCA = 10 (CARD 451 - TIME FOR A LOK CRANE TO LOAD UNLOAD HEAVY BULKY LOAD ONTO/FROM TRUCK
TPMCB = 10 (CARD 491 - TIME FOR A LOK CRANE TO MOVE HEAVY BULKY LOAD FROM NEAR TO ONTO PIER (TEMP SERVICES)
TPMCC = 30 (CARD 521 - TIME FOR 10K CRANE TO CONNECT HEAVY BULKY LOAD (TEMPORARY SERVICES) TO SHIP
TPBCO = 1 (CARD 551 - TIME FOR LOK CRANE TO POKE MANY BULKY RIPOUT ITEM FROM LWR DECK TO TEMP LOC (PIER)
TTTA1 = 7 (CARD 591 - TIME FOR A TRUCK TO TRANSIT NEAR PIER (TEMPORARY SERVICES)
TTCA1 = 0 (CARD 611 - TIME FOR LOK CRANE TO TRANSFER RIPPED OUT MATERIAL FROM UPPER DECK TO TEMP LOC (PIER)
TTCA2 = 1 (CARD 641 - TIME FOR LOK CRANE TO TRANSFER RIPPED OUT MATERIAL FROM SHIP HULL
UTMEN = 0 (CARD 681 - MATERIAL HANDLING DELAY TIME BEFORE CUTTING HOLE(S) IN SHIP HULL
CTHLE = 1 (CARD 701 - 1 IF HOLES TO BE CUT IN SHIP WITH USE OF FORKLIFT; = 0 IF OTHERWISE
NFHLA = 0 (CARD 731 - NUMBER OF 4K FORKLIFTS USED WHEN CUTTING HOLES IN SHIP HULL
TFKLA = 63 (CARD 751 - TIME 4K FORKLIFTS USED TO CUT HOLES IN SHIP HULL
NFKLB = 2 (CARD 771 - NUMBER OF 6K FORKLIFTS USED WHEN CUTTING HOLES IN SHIP HULL
TFKLB = 60 (CARD 791 - TIME 6K FORKLIFTS USED TO CUT HOLES IN SHIP HULL
PSTK = 0 (CARD 811 - FRACTION OF TIME WE WANT TO USE GROUP 911 STRADDLE TRUCKS INSTEAD OF FORKLIFTS
TPFF = 20 (CARD 861 - TIME FOR 4/6/10K FL TO MOVE PALLETIZED RIPOUT ITEM FROM PIER TO REPAIR SHOPS + ATM
XOME = 1000 (CARD 891 - FRACTION OF TIME RIPOUT ITEMS MOVED FROM PIER TO REPAIR SHOPS BY FL INSTEAD OF TRUCK
YONE = 0 (CARD 961 - FRACTION OF TIME RIPOUT ITEMS MOVED FROM PIER TO REPAIR SHOPS BY TRUCK INSTEAD OF FL
PNLW = 1000 (CARD 1021 - FRACTION OF HEAVY BULKY RIPOUT ITEMS WHICH ARE NON-ELONGATED
VLLH = 0 (CARD 1051 - FRACTION OF HEAVY BULKY RIPOUT ITEMS WHICH ARE ELONGATED
TLPFA = 4 (CARD 1081 - TIME FOR 10K FORKLIFT TO LOAD PALLETIZED RIPOUT ITEM ONTO FLATBED TRUCK
TTTRD = 10 (CARD 1111 - TIME FOR FLATBED TRUCK TO GO FROM TEMPORARY STAGING (PIER) TO REPAIR SHOPS
TTTRC = 10 (CARD 1141 - TIME FOR FLATBED TRUCK TO GO FROM TEMPORARY LOCATION (PIER) TO REPAIR SHOPS
STMIN = 5 (CARD 1171 - MAXIMUM NUMBER OF PALETS REQUIRED FOR USED OF STRADDLE TRUCK
STMAX = 7 (CARD 1191 - MAXIMUM NUMBER OF PALETS STRADDLE TRUCK CAN CARRY
STRKA = 2 (CARD 1211 - TIME FOR STRADDLE TRUCK TO GO FROM TEMPORARY STAGING (PIER) TO REPAIR SHOPS
SMPFG = 2 (CARD 1241 - TIME FOR 4/6K FORKLIFT TO LINE UP ONE PALLET FOR A STRADDLE TRUCK
TRMSA = 2 (CARD 1261 - TIME FOR SLR TO MOVE ELNGTD HVY BULKY RIPOUT ITEM FROM OUTSIDE TO INSIDE REPAIR SHP
TRMFB = 7 (CARD 1281 - TIME FOR 10K FL TO MOVE NON-ELNGTD HVY BULKY RIPOUT ITEM FROM OUTSIDE TO INSIDE RPR SHP
TRPFH = 18 (CARD 1331 - TIME FOR 10K FL TO UNLOAD PALLET FROM TRUCK, MOVE TO INSIDE REPAIR SHOP AND RETURN
TRPPFJ = 25 (CARD 1381 - TIME FOR 4/6K FL TO MOVE PALLET FROM OUTSIDE TO INSIDE REPAIR SHOP AND RETURN
ASHPA = 60 (CARD 1421 - TIME FOR LESS THAN 4K PALLETIZED RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS
ASHPP = 60 (CARD 1441 - TIME FOR BETWEEN 4K AND 6K PALLETIZED RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS
ASHPC = 60 (CARD 1471 - TIME FOR GREATER THAN 6K PALLETIZED RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS
ASHPD = 60 (CARD 1491 - TIME FOR ELONGATED HEAVY BULKY RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS
ASHPE = 60 (CARD 1521 - TIME FOR NON-ELONGATED HEAVY BULKY RIPOUT ITEM TO BE SERVICED BY REPAIR SHOPS

```

0145400,0114,PU, 2006,GPSS V/6000

CRT GPSS V/6000 VEP. 1.3 PSR 526 04/14/67 09:08:52. PAGE 54

MATRIX TABLE CONSISTS OF USER DEFINED INPUT VALUES
(DETAILED DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

COLUMN 1 (CARD 166) = HOURS AT WHICH SHIP ARRIVALS OCCUR
COLUMN 2 (CARD 161) = NUMBERS OF SHIP PREARRIVALS IN COLUMN 1
COLUMN 3 (CARD 163) = HOURS FOR STAGING OF TEMPORARY SERVICES ONTO PIER
COLUMN 4 (CARD 165) = NUMBERS OF STAGINGS SPECIFIED IN COLUMN 3
COLUMN 5 (CARD 167) = HOURS AT WHICH SHIP ARRIVALS OCCUR
COLUMN 6 (CARD 168) = NUMBERS OF SHIP ARRIVALS IN COLUMN 5

HALFWORD MATRIX TABL

ROWS/COLUMN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	
	c	o	o	o	o	o																								

DINSDAUGUSTH, MD. 20054 GROSS V/6000

CRM GPSS V/6000 VER. 1.3 PSR 526 04/14/87 09:00:52. PAGE 55

MATRIX TBLB CONSISTS OF USER DEFINED INPUT VALUES
(DETAILS DEFINITIONS ARE IN RE ICUNG AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

TBLB(1,1) (CAKO 172) = NUMBER OF PALLETIZED LOADS LESS THAN 4K (SHIP PREARRIVALS)
TBLB(1,2) (CAFO 173) = NUMBER OF PALLETIZED LOADS BETWEEN 4K AND 6K (SHIP PREARRIVALS)
TBLB(1,3) (CACD 174) = NUMBER OF PALLETIZED LOADS GREATER THAN 6K (SHIP PREARRIVALS)
TBLB(1,4) (CARD 175) = NUMBER OF HEAVY BULKY LOADS (SHIP PREARRIVALS)
TBLB(2,1) (CAPT 176) = NUMBER OF PALLETIZED RIPOUT ITEMS LESS THAN 4K TO BE TRANSFERRED FROM LOWER DECK TO TEMP LOC (PIER)
TBLB(2,2) (CAFO 177) = NUMBER OF PALLETIZED RIPOUT ITEMS BETWEEN 4K AND 6K TO BE TRANSFERRED FROM LOWER DECK TO TEMP LOC (PIER)
TBLB(2,3) (CAKO 178) = NUMBER OF PALLETIZED RIPOUT ITEMS GREATER THAN 6K TO BE TRANSFERRED FROM LOWER DECK TO TEMP LOC (PIER)
TBLB(2,4) (CACD 191) = NUMBER OF HEAVY BULKY RIPOUT ITEMS TO BE TRANSFERRED FROM LOWER DECK TO TEMP LOC (PIER)
TBLB(3,1) (CAFO 184) = NUMBER OF PALLETIZED RIPOUT ITEMS LESS THAN 4K TO BE TRANSFERRED FROM UPPER DECK TO TEMP LOC (PIER)
TBLB(3,2) (CAFO 185) = NUMBER OF PALLETIZED RIPOUT ITEMS BETWEEN 4K AND 6K TO BE TRANSFERRED FROM UPPER DECK TO TEMP LOC (PIER)
TBLB(3,3) (CAFO 186) = NUMBER OF PALLETIZED RIPOUT ITEMS GREATER THAN 6K TO BE TRANSFERRED FROM UPPER DECK TO TEMP LOC (PIER)
TBLB(3,4) (CACD 187) = NUMBER OF HEAVY BULKY RIPOUT ITEMS TO BE TRANSFERRED FROM UPPER DECK TO TEMP LOC (PIER)

HALFWORD MATRIX TBLB

ROW/COLUMN	1	2	3	4
1	90	15	20	0
2	400	60	60	10
3	800	160	100	10

MATPIX AAA1 IS THE THROUGHPUT MATRIX FOR GENERAL EXPLANATION SEE CARD NUMBER 3401
 (DETAILED DEFINITIONS ARE TO BE FOUND AT THE INDICATED CARD NUMBERS IN THE MAIN PROGRAM LISTING)

INPUTS TO THE PIER AREA

COLUMN 1 = NUMBER OF PALLETIZED LOADS OF TEMPORARY SERVICES MATERIAL (CARD 3461)
 COLUMN 2 = NUMBER OF HEAVY BULKY LOADS OF TEMPORARY SERVICES MATERIAL (CARD 3501)
 COLUMN 3 = NUMBER OF PALLETIZED RIPOUT ITEMS COMING FROM LOWER DECK (CARD 3521)
 COLUMN 4 = NUMBER OF PALLETIZED RIPOUT ITEMS COMING FROM UPPER DECK (CARD 3541)
 COLUMN 5 = NUMBER OF HEAVY BULKY RIPOUT ITEMS COMING FROM LOWER DECK (CARD 3561)
 COLUMN 6 = NUMBER OF HEAVY BULKY RIPOUT ITEMS COMING FROM UPPER DECK (CARD 3581)

OUTPUTS FROM THE PIER AREA

COLUMN 7 = NUMBER OF PALLETIZED LOADS OF TEMPORARY SERVICES MATERIAL CONNECTED TO SHIP (CARD 3601)
 COLUMN 8 = NUMBER OF HEAVY BULKY LOADS OF TEMPORARY SERVICES MATERIAL CONNECTED TO SHIP (CARD 3631)
 COLUMN 9 = NUMBER OF PALLETIZED RIPOUT ITEMS MOVED FROM PIER TO REPAIR SHOPS VIA FORKLIFTS (CARD 3661)
 COLUMN 10 = NUMBER OF PALLETIZED RIPOUT ITEMS MOVED FROM PIER TO REPAIR SHOPS VIA TRUCKS (CARD 3691)
 COLUMN 11 = NUMBER OF PALLETIZED RIPOUT ITEMS MOVED FROM PIER TO REPAIR SHOPS VIA STRADDLE TRUCKS (CARD 3721)
 COLUMN 12 = NUMBER OF HEAVY BULKY RIPOUT ITEMS GOING FROM PIER TO REPAIR SHOPS VIA TRUCKS (CARD 3751)

INPUTS TO THE REPAIR SHOPS

COLUMN 13 = NUMBER OF PALLETIZED RIPOUT ITEMS COMING INTO REPAIR SHOPS FROM OUTSIDE REPAIR SHOPS (CARD 3761)
 COLUMN 14 = NUMBER OF HEAVY BULKY RIPOUT ITEMS COMING INTO REPAIR SHOPS FROM OUTSIDE REPAIR SHOPS (CARD 3811)

OUTPUTS FROM THE REPAIR SHOPS

COLUMN 15 = NUMBER OF PALLETIZED RIPOUT ITEMS GOING OUT OF REPAIR SHOPS (CARD 3831)
 COLUMN 16 = NUMBER OF HEAVY BULKY RIPOUT ITEMS GOING OUT OF REPAIR SHOPS (CARD 3851)

HALFWORD MATRIX AAA1

ROW/COLUMN	1	2	3	4	5	6	7	8	9	10	0000000000000000
1	125	0	0	0	0	0	0	0	0	0	512
2	125	0	54C	106C	10	10	125	0	0	0	1600
3	125	0	54C	106C	10	10	125	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0

HALFWORD MATRIX AAA1

ROW/COLUMN	11	12	13	14	15	16
1	0	0	0	0	0	0
2	0	0	0	0	64	0
3	0	0	0	0	170	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0

	CKM GPSS V/6000	VER. 1.3	PSA 526	04/14/87	04-08-320	PAGE	57
01NS00C-BETM. MD. 2UC4 GPSS V/6000 HALFWUD MATRIX AAA1	11	12	13	14	15	16	
FOB/CNLUFM	0	0	0	C	C	C	
7	0	0	0	C	C	C	
5	0	0	0	C	C	C	
4	0	0	0	C	C	C	
10	0	0	0	C	C	C	

DIMSADC, RETN. #D. 20064 GPSS V/6000

CRM GPSS V/6000 VER. 1.3 PSR 526 04/14/87 08:06:39. PAGE 10

BLOCK NUMBER	LOC	OPERATION A,B,C,D,E,F,G,H,I,J	COMMENTS	CARD NUMBER
1	1	COLUMN 16 = ACCUMULATED NUMBER OF HEAVY BULKY RIPOUT ITEMS GOING OUT OF REPAIR SHOPS (402 QUIT)		385
	2	RWLT PATTERN # 3012	OVERALL UTILIZATION MATRIX	386
	3	MATRIX INITIALIZATIONS		387
	4	INITIAL MHSTBLA(1,1),0 MHSTBLA(1,2),1 MHSTBLA(1,3),0 MHSTBLA(1,4),1 MHSTBLA(1,5),0 INITIAL MHSTBLA(1,6),1 INITIAL MHSTBLA(1,7),90/MHSTBLB(1,2),15 INITIAL MHSTBLF(1,3),20/MHSTBLt(1,4),0 INITIAL MHSTBLG(2,3),400/MHSTBLB(2,2),80 INITIAL MHSTBLB(2,3),60/MHSTBLB(2,4),10 INITIAL MHSTBL(3,1),900/MHSTBLA(3,2),160 INITIAL MHSTBLB(3,3),100/MHSTBLF(3,4),10		388
	5	VARIABLE DEFINITIONS		389
1	6	TMPPA VARIABLE X4\$TPPF A*P1 TMPPB VARIABLE X4\$TPPF B*P1 TRPIC VARIABLE (X4\$TPPF C*P1)/P4 TMPPD VARIABLE X4\$TPPF D*P1 TMPE VARIABLE X4\$TPPF E*P1 TMFFF VARIABLE X4\$TPPF F*P1 TMPPG VARIABLE X4\$TPPF G*P1 TMPPH VARIABLE X4\$TPPF H*P1 TMPPJ VARIABLE X4\$TPPF J*P1 TMPCA VARIABLE X4\$TPPCA*P1 TRPCB VARIABLE X4\$TPPCB*P1 TRBCC VARIABLE (X4\$TPHACC*P1)/P4 TRBCD VARIABLE X4\$TPACD*F3 TLPFA VARIABLE X4\$TLPPFA*P1 NUM1 VARIABLE RSFLDA+SSFLIA NUM2 VARIABLE RSFLAA+SSFLAA NUM3 VARIABLE RSFLCA+SSFLCA NUM4 VARIABLE RSFLCB+SSFLCB NUM5 VARIABLE ESCREASCREA NUM6 VARIABLE ASCREB+SSCREB NUM7 VARIABLE RSSTPIA+SSSTPIA NUM8 VARIABLE RSFLAB+SSFLAB NUM9 VARIABLE RSFLBB+SSFLBB NUM10 VARIABLE RSSFLG8+SSSLG9 PROGA VARIABLE MXSOVUTL(1,1,P1)*MXSOVUTL(2,P1) SUPD VARIABLE MXSOVUTL(2,2,P1)*MXSOVUTL(2,P1) SUPL VARIABLE MXSOVUTL(3,1)*MXSOVUTL(3,P1) LIV1 VARIABLE (MXSOVUTL(3,21))/MXSOVUTL(2,11),/10		390
	11	SIMULATION OF SHIP OVERHAUL		391
	12			392
	13			393
	14			394
	15			395
	16			396
	17			397
	18			398
	19			399
	20			400
	21			401
	22			402
	23			403
	24			404
	25			405
	26			406
	27			407
	28			408
	29			409
	30			410
	31			411
	32			412
	33			413
	34			414
	35			415
	36			416
	37			417
	38			418
	39			419
	40			420
	41			421
	42			422
	43			423
	44			424
	45			425
	46			426
	47			427
	48			428
	49			429
	50			430
	51			431
	52			432
	53			433
	54			434
	55			435

BLOCK NUMBER	*LOC	DECLARATION A,B,C,C*,F,G,H,I,J	Comments	CARD NUMBER
	*	COPYING INTO REPAIR SHOPS FROM OUTSIDE REPAIR SHOPS (402 IN)		330
	(1,13) *	ACCUMULATED NUMBER OF PALLETIZED RIPOUT ITEMS GOING OUT OF REPAIR SHOPS (402 OUT)		331
	(1,14) *	ACCUMULATED NUMBER OF HEAVY BULKY RIPOUT ITEMS GOING OUT OF REPAIR SHOPS (402 OUT)		332
	(1,15) *	ACCUMULATED NUMBER OF HEAVY BULKY RIPOUT ITEMS COMING FROM LOWER DECK (401 IN)		333
	(1,16) *	ACCUMULATED NUMBER OF HEAVY BULKY RIPOUT ITEMS COMING FROM UPPER DECK (401 IN)		334
4441	M,10,16	CUMULATIVE OVER TIME. THE VALUES IN THE FIRST ROW ARE FOR THE FIRST 6 HOURS OF THE RUN. THE VALUES IN THE SECOND ROW ARE FOR THE FIRST 16 HOURS OF THE RUN. THE VALUES IN THE THIRD ROW ARE FOR THE FIRST 24 HOURS OF THE RUN AND SO ON, EACH SUCCESSIVE ROW GIVING CUMULATIVE VALUES REPRESENTATIVE OF THE SITUATION AFTER THE PASSAGE OF 8 MORE HOURS OF TIME.		335
	COLUMN 1 *	ACCUMULATED INPUT MATERIAL BY NUMBER OF PALLETIZED LOADS OF TEMPORARY SERVICES MATERIAL (401 IN)		346
	COLUMN 2 *	ACCUMULATED INPUT MATERIAL BY NUMBER OF HEAVY BULKY LOADS OF TEMPORARY SERVICES MATERIAL (401 IN)		347
	COLUMN 3 *	ACCUMULATED NUMBER OF PALLETIZED RIPOUT ITEMS COMING FROM LOWER DECK (401 IN)		348
	COLUMN 4 *	ACCUMULATED NUMBER OF PALLETIZED RIPOUT ITEMS COMING FROM UPPER DECK (401 IN)		349
	COLUMN 5 *	ACCUMULATED NUMBER OF HEAVY BULKY RIPOUT ITEMS COMING FROM LOWER DECK (401 IN)		350
	COLUMN 6 *	ACCUMULATED NUMBER OF HEAVY BULKY RIPOUT ITEMS COMING FROM UPPER DECK (401 IN)		351
	COLUMN 7 *	ACCUMULATED OUTPUT MATERIAL BY NUMBER OF PALLETIZED LOADS OF TEMPORARY SERVICES MATERIAL CONNECTED TO SHIP (401 OUT)		352
	COLUMN 8 *	ACCUMULATED OUTPUT MATERIAL BY NUMBER OF HEAVY BULKY LOADS OF TEMPORARY SERVICES MATERIAL CONNECTED TO SHIP (401 OUT)		353
	COLUMN 9 *	ACCUMULATED NUMBER OF PALLETIZED RIPOUT ITEMS MOVED FROM PIER (TEMPORARY STAGING) TO REPAIR SHOPS (401 OUT)		354
	COLUMN 10 *	ACCUMULATED NUMBER OF PALLETIZED RIPOUT ITEMS MOVED FROM PIER (TEMPORARY STAGING) TO REPAIR SHOPS (401 OUT)		355
	COLUMN 11 *	ACCUMULATED NUMBER OF PALLETIZED RIPOUT ITEMS MOVED FROM PIER (TEMPORARY STAGING) TO ALPAP SHOPS (401 OUT)		356
	COLUMN 12 *	ACCUMULATED NUMBER OF HEAVY BULKY RIPOUT ITEMS GOING FROM PIER (TEMPORARY LOCATION) TO REPAIR SHOPS VIA TRUCKS (401 OUT)		357
	COLUMN 13 *	ACCUMULATED NUMBER OF PALLETIZED RIPOUT ITEMS COMING INTO REPAIR SHOPS FROM OUTSIDE REPAIR SHOPS (402 IN)		358
	COLUMN 14 *	ACCUMULATED NUMBER OF HEAVY BULKY RIPOUT ITEMS COMING INTO REPAIR SHOPS FROM OUTSIDE REPAIR SHOPS (402 IN)		359
	COLUMN 15 *	ACCUMULATED NUMBER OF PALLETIZED RIPOUT ITEMS GOING OUT OF REPAIR SHOPS (402 OUT)		360

APPENDIX D
NETEDF

PROGRAM 'NETER'
PROGRAM 'NETEDF'
PROGRAM 'NETEDR'

PURPOSE TEXT EDITOR (MODELED AFTER THE STANDARD ARPANET EDITOR)

FUNCTIONAL CATEGORIES

EXECUTION

EXECUTE CARD PARAMETERS
NETFDALFN,ASCIT.
LFN - FILE TO BE CREATED OR EDITED
IF OMITTED, NETED WILL REQUEST IT
ASCII - IF OMITTED - LFN IS STANDARD CDC DISPLAY
CODE
IF SPECIFIED - LFN IS 7-BIT ASCII FILE

DEFAULT EXECUTE CARD
NO MEANINGFUL DEFAULT VALUES

REMARKS

THIS PAGE IS NOT A PART OF THE DOCUMENT. IT IS INCLUDED FOR
PROCESSING BY PROGRAMS 'EXECARD' AND 'PURPOSE'.

TWO MODIFIED VERSIONS OF NETED ARE AVAILABLE, NETEDF AND NETEDR. SEE PAGE 2C FOR THE DIFFERENCES, WHICH ARE FLAGGED IN THE PARM DOCUMENT WITH AN ASTERISK (*) AT THE END OF THE LINE.

INTRODUCTION

NETED IS A TEXT EDITOR MODELED AFTER THE STANDARD ARPANET EDITOR. IT WAS ACQUIRED FROM ED FOURT OF LAWRENCE BERKELEY LABS, IMPLEMENTED AT DTNSRDC BY THE CONSTRUCTION ENGINEERING RESEARCH LABORATORY (CERL) COMPUTER SERVICES BRANCH, AND MAINTAINED BY DTNSRDC. WE SOLICIT YOUR COMMENTS AND SUGGESTIONS ABOUT NETED AND THIS WRITEUP.

NETED HAS SEVERAL ADVANTAGES OVER THE STANDARD INTERCOM EDITOR. THEY INCLUDE:

1. LOW COST -- INEXPENSIVE TO USE
2. DOES NOT REQUIRE LINE NUMBERING
3. ALLOWS THE MERGING OF FILES
4. DOES NOT LIMIT THE SIZE OF SEARCH AND REPLACEMENT STRINGS
5. SUPPORTS FULL ASCII UPPER AND LOWER CASE FILES
6. IS NOT A MULTI-USER-JOB, IF IT DOES HANG IT MAY BE ABORTED
7. USES ONLY A SMALL AMOUNT OF MEMORY (CURRENTLY LESS THAN 12K OCT)

NETED WORKS IN TWO DISTINCT MODES -- INPUT MODE AND EDIT MODE. IN INPUT MODE, LINES READ FROM THE TERMINAL ARE ENTERED DIRECTLY INTO THE FILE. A LINE CONSISTING OF ONLY A PERIOD HAS MEANING; THAT IS RETURN TO EDIT MODE.

IN EDIT MODE THERE ARE A NUMBER OF COMMANDS WHICH ALLOW YOU TO EASILY LOCATE LINES, ADD, DELETE, AND REPLACE LINES, CHANGE PARTS OF LINES, MOVE YOUR POINT OF INTERACTION WITH THE FILE ('THE POINTER'), INSERT AN ENTIRE FILE AT ANY POINT IN THE FILE YOU ARE EDITING, SAVE THE FILE YOU ARE EDITING, AND MAKE A COPY OF ALL OR PART OF THE FILE ON ANOTHER FILE.

ENTERING NETED

NETED IS AVAILABLE ON THE DTNSRDC CDC 6000 COMPUTERS. TO USE IT, YOU MUST FIRST ATTACH IT BY ENTERING:

ATTACH,NETED

EACH TIME YOU WISH TO ENTER NETED TYPE:

NETED OR, NETED,LFN OR, NETED,LFN,CH=AS

IF YOU ENTER ONLY NETED, NETED WILL ASK YOU FOR THE NAME OF THE FILE TO EDIT.

NETED ALLOWS FILES TO HAVE A MAXIMUM LINE SIZE OF 140 CHARACTERS. IF THE FILE HAS LONGER LINES, NETED WILL TRUNCATE THEM AND ISSUE A WARNING MESSAGE.

FOR EXTENSIVE EDITING OF VERY LARGE FILES, IT MAY BE NECESSARY TO INCREASE THE TIME LIMIT BEFORE ENTERING NETED. USE 'ETL,<LIMIT>'.

DTNSPDC -- CERL -- BKY -- NETED

PAGE 2 OF 20

THE PRESENCE OF CH AS AS THE SECOND PARAMETER ('ASCII') CAUSES NETED TO WORK IN ASCII MODE, WITH UPPER AND LOWER CASE CAPABILITY. CHARACTERS EXIST IN THE FILE AS 7-BIT ASCII CHARACTERS (5 PER WORD, RIGHT-JUSTIFIED IN A 12-BIT BYTE).

WARNING

ASCII MODE IS NOT COMPATIBLE WITH NORMAL MODE! YOU CANNOT MIX FILES OF DIFFERENT MODES. CURRENTLY, NETED IS THE ONLY SOFTWARE PRODUCT AVAILABLE TO US WHICH SUPPORTS ASCII MODE.

PROGRAM 'ASCDC' ON LIBRARY 'UTILITY' WILL CONVERT A NETED ASCII FILE TO CDC DISPLAY CODE AND VICE VERSA. TO USE:

BEGIN,UTILITY,,ASCDC,INFILE,OUTFILE,TYPE,OUTPUT.

WHERE TYPE IS: A2C OR OMITTED - INFILE:ASCII; OUTFILE: DISPLAY CODE ANYTHING ELSE - INFILE:DISPLAY CODE; OUTFILE:ASCII

THE DOCUMENT FOR THIS PROGRAM MAY BE PRINTED WITH:
BEGIN,DOCGET,,UTILITY,,ASCDC,OUTPUT.

FILES AND OPERATION

THE FILE TO BE EDITED MUST BE A LOCAL FILE. IF IT IS AN ATTACHED PERMANENT FILE, NETED WILL NOT ALLOW IT TO BE OVERWRITTEN. IF THE FILE DOES NOT EXIST, NETED WILL REQUEST IT (*PF) WHEN IT IS WRITTEN.

END-OF-RECORD AND END-OF-FILE

NETED EDITS FILES WHICH CONTAIN RECORD MARKS. WHEN A FILE IS BROUGHT UNDER NETED, EACH RECORD MARK IS TURNED INTO A LINE CONSISTING ONLY OF 'EOR' (FOR END-OF-RECORD), OR 'EOF' (FOR END-OF-FILE). ON OUTPUT, EACH LINE OF THIS FORM ('EOR' OR 'EOF') IS CONVERTED TO ITS EQUIVALENT RECORD MARK.

----FUNDAMENTALS

THE POINTER

IN NETED, YOUR FILE IS CONCEIVED OF AS BEGINNING AT THE TOP AND EXTENDING TO THE BOTTOM, OR END. THERE IS A CONCEPTUAL POINTER, WHICH INDICATES THE CURRENT LINE IN THE FILE. IF YOU WISH TO ALTER A LINE, YOU MUST FIRST SET THE POINTER ON IT. WHEN YOU ADD A LINE, THE NEW LINE GOES AFTER THE CURRENT LINE AND THE NEW LINE ADDED BECOMES THE CURRENT LINE. THE NETED COMMAND STARTS YOU OFF WITH THE POINTER AT THE TOP OF YOUR FILE. WHEN YOU CHANGE BETWEEN INPUT AND EDIT MODE - IN EITHER DIRECTION - THE POINTER DOES NOT MOVE. TO SEE WHICH LINE THE POINTER IS ON, JUST TYPE 'P' (IN EDIT MODE).

THE FILE SHOULD NOT BE THOUGHT OF AS CIRCULAR, IN THAT THERE IS A REAL DIFFERENCE BETWEEN HAVING THE POINTER AT THE TOP OF THE FILE AND HAVING IT AT THE BOTTOM. THE TOP IS NOT THE NEXT POSITION AFTER THE BOTTOM.

MORE ON THE <BOTTOM> AND THE <TOP>

IN NETED, YOUR FILE CONTAINS TWO PSEUDO-LINES, THE <TOP OF FILE>, AND THE <BOTTOM OF FILE>. THESE REPRESENT THE POSITION OF THE POINTER WHEN IT LIES JUST IN FRONT OF THE FIRST LINE IN THE FILE, OR JUST AFTER THE LAST LINE IN THE FILE RESPECTIVELY. A LINE INSERTED WHEN THE POINTER IS AT THE TOP WILL GO IN FRONT OF THE PREVIOUS FIRST LINE -- A LINE ENTERED AT THE BOTTOM GOES AT THE END OF THE FILE. THE POINTER THEN POINTS TO THE LINE JUST ENTERED, AND THE BOTTOM WOULD BE JUST BELOW IT.

SINCE THE TOP AND BOTTOM POSITIONS ARE NOT REALLY LINES, EDIT MODE COMMANDS WHICH ATTEMPT TO CHANGE THEM HAVE NO EFFECT.

TOGGLE SWITCHES

NETED HAS TWO COMMANDS BEST THOUGHT OF AS REVERSING THE POSITION OF TOGGLE SWITCHES. THE PERIOD IS AN EXAMPLE. IT SIMPLY SAYS 'CHANGE MODES'. THE MODE YOU GET DEPENDS UPON WHICH MODE WAS IN EFFECT WHEN THE COMMAND WAS ISSUED. ISSUING A TOGGLE-TYPE COMMAND TWICE JUST LEAVES THINGS AS THEY WERE. THE OTHER TOGGLE-TYPE COMMAND IS V (TURNS ON AND OFF THE OPTIONAL PRINTING OF SOME COMMANDS), AND * (TURNS ON AND OFF THE NETED PROMPT OF E> OR I>).

TERMINAL OUTPUT --OPTIONAL RESPONSES

MOST OF NETED'S EDIT COMMANDS PRODUCE SOME KIND OF PRINTING AT YOUR TERMINAL IN RESPONSE. NETED INSISTS UPON GIVING SOME OF THESE RESPONSES, BUT ALLOWS YOU TO DISABLE THE PRINTING OF OTHERS. THOSE WHICH CAN BE DISABLED ARE CALLED 'OPTIONAL RESPONSES'. THE PRINTING OR SUPPRESSING OF OPTIONAL RESPONSES IS CONTROLLED BY THE TOGGLE SWITCH COMMAND V. THE COMMANDS WHICH GENERATE OPTIONAL RESPONSES ARE THE NEXT, LOCATE, FIND, LOCATE BACKWARD, FIND BACKWARD, CHANGE, AND REPEAT CHANGE COMMANDS.

COMMAND FORMAT

IN EDIT MODE, NETED WILL RECOGNIZE AND EXECUTE COMMANDS FROM THE LIST IN THE NEXT SECTION. THESE COMMANDS HAVE IN GENERAL THE FORM OF A LETTER IN COLUMN ONE FOLLOWED SOMETIMES BY PARAMETERS. A BLANK SPACE MUST SEPARATE THE LETTER FROM THE PARAMETERS ONLY IF THE PARAMETER STARTS WITH A LETTER, %, ., OR *. OTHERWISE THEY MAY FOLLOW THE COMMAND IMMEDIATELY. PARAMETERS MAY BE INTEGERS OR ALPHANUMERIC TEXT. IN THE FOLLOWING DISCUSSION, X WILL INDICATE AN INTEGER PARAMETER, STRING WILL INDICATE A STRING OF TEXT. A 'S' IS ALLOWED AS AN INTEGER PARAMETER, AND IS A SHORTHAND NOTATION FOR A VERY LARGE NUMBER, WHICH WILL FORCE MOST COMMANDS TO EXECUTE TO THE BOTTOM OF FILE. THE STRINGS MAY CONTAIN LEADING AND INTERNAL BLANKS, AND THESE BLANKS WILL BE SIGNIFICANT. FOR THE F, L, I, AND R COMMANDS, THE LEADING BLANKS START IN COLUMN 3. FOR THE FB AND LB COMMANDS, LEADING BLANKS START IN COLUMN 4. TRAILING BLANKS ARE NOT SIGNIFICANT IN ANY COMMAND. THERE IS NO SIZE LIMIT ON THE INTEGER PARAMETERS, AND IF OMITTED, THE DEFAULT VALUE IS 1.

LINE LENGTH

IN NETED, TEXT LINES, COMMANDS, AND PATTERNS MAY BE 140 CHARACTERS IN LENGTH.

TINPUT MODE

IN NETED'S INPUT MODE, EVERY LINE ENTERED IS TAKEN TO BE A NEW LINE OF TEXT TO BE ADDED TO THE FILE AT THE CURRENT POSITION. THE POINTER IS ALWAYS AT THE LAST LINE OF TEXT ENTERED. THE ONE EXCEPTION IS THAT A LINE OF TEXT WHICH CONSISTS OF JUST A PERIOD IN COLUMN 1 IS TAKEN AS THE COMMAND TO LEAVE INPUT MODE. IF YOU ENTER EDIT MODE COMMANDS WHILE IN INPUT MODE, THE COMMANDS ARE ACCEPTED AS TEXT.

IF YOU ENTER LINES IN EDIT MODE WITH THE I OR R COMMAND, THE FIRST TWO COLUMNS ARE TAKEN UP WITH THE COMMAND LETTER AND THE BLANK FOLLOWING. BECAUSE OF THE CONFUSION OF WHICH COLUMN YOU ARE IN, TABS WORK ONLY IN INPUT MODE, WHERE THE COLUMNS YOU TYPE IN CORRESPOND TO THE COLUMNS IN THE TEXT.

NOTE

IF A COMMAND SEEMS TO TAKE FOREVER TO GET EXECUTED, IT MAY BE THAT YOU ARE REALLY IN INPUT MODE. WHEN NETED ENTERS INPUT MODE IT TYPES 'INPUT' ON YOUR TERMINAL. IT SIGNIFIES EDIT MODE BY PRINTING 'EDIT'.

*** SUMMARY OF NETED EDIT MODE COMMANDS ***
THESE COMMANDS ARE EXPLAINED IN DETAIL IN THE FOLLOWING SECTIONS.

** COMMANDS THAT ONLY MOVE THE POINTER **

M X MOVES THE POINTER DOWN X LINES. IF X IS OMITTED, THE
POINTER IS MOVED FORWARD ONE LINE. CURRENT LINE IS
OPTIONALLY PRINTED. A NEGATIVE PARAMETER MOVES THE
POINTER BACK TOWARD THE TOP.

P X PRINTS X LINES AT YOUR TERMINAL BEGINNING WITH AND
FOLLOWING THE CURRENT LINE.

L <STRING> MOVES POINTER DOWN TO THE NEXT LINE CONTAINING <STRING>.
LB <STRING> MOVES POINTER BACK TO THE LAST LINE CONTAINING <STRING>.

F <STRING> MOVES POINTER DOWN TO NEXT LINE BEGINNING WITH <STRING>.
FB <STRING> MOVES POINTER BACK TO LAST LINE BEGINNING WITH <STRING>.

T MOVES THE POINTER TO THE <TOP OF FILE>

B MOVES THE POINTER TO THE LAST LINE OF THE FILE AND
OPTIONALLY PRINTS IT.

<CR> ON THE 6600/6700, A LINE CONSISTING ONLY OF A CARRIAGE
RETURN MOVES THE POINTER FORWARD ONE LINE AND PRINTS THE
NEW LINE. SAME AS 'N 1'. (ON THE 6400, USE SPACE <CR>.)

** COMMANDS THAT ALTER LINES **

C /<STRING1>/<STRING2>/ X G
CHANGES <STRING1> TO <STRING2> IN THE NEXT X LINES
(INCLUDING THE CURRENT LINE). IF THE OPTIONAL PARAMETER
G IS INCLUDED, EVERY OCCURRENCE OF <STRING1> IS CHANGED
TO <STRING2> IN ALL X LINES; IF THE G IS OMITTED, ONLY
THE FIRST OCCURRENCE IN EACH LINE IS CHANGED.

THE INTEGER PARAMETER X IS OPTIONAL; IF OMITTED, ONLY THE
CURRENT LINE IS AFFECTED. INSTEAD OF THE SLASH(/), ANY
CHARACTER NOT OCCURRING IN EITHER STRING MAY BE USED
EXCEPT A BLANK, CNTRL-X, CNTRL-U, CNTRL-H, OR DEL.

? BOTH THE C AND RC COMMANDS MAY BE PREFIXED WITH A '?'.
NETED WILL THEN DISPLAY THE CHANGED LINE AND ASK FOR
INSTRUCTIONS TO PROCEED. THE VALID RESPONSES ARE:
Y TO MAKE THE CHANGE
C TO MAKE THE CHANGE AND CONTINUE THE COMMAND
WITHOUT QUESTION
N NO CHANGE BUT PROCEED WITH THE COMMAND
Q TO QUIT THE COMMAND NOW, WITHOUT CHANGE.

RC G REMEMBERS THE LAST /<STRING1>/<STRING2>/, AND REAPPLIES
THE CHANGE TO THE CURRENT LINE. THE G IS OPTIONAL AS
ABOVE.

I <STRING> INSERTS <STRING> INTO THE FILE AS A NEW LINE AFTER THE CURRENT LINE, AND SETS THE POINTER TO THE INSERTED LINE.

D X DELETES X LINES STARTING WITH THE CURRENT LINE AND THE FOLLOWING X-1 LINES. DEFAULT IS 1 LINE. THE POINTER IS MOVED TO THE LINE IN FRONT OF THE FIRST LINE DELETED.

DTOP DELETES ALL LINES FROM THE TOP OF THE FILE DOWN TO THE CURRENT LINE, BUT DOES NOT DELETE THE CURRENT LINE. THE POINTER POSITION IS LEFT UNCHANGED.

R <STRING> REPLACES THE CURRENT LINE WITH <STRING>. <STRING> BECOMES THE CURRENT LINE.

** FILE MANIPULATION COMMANDS **

W <FILE> WRITES THE WORKING COPY OF YOUR FILE OUT TO DISK AS THE FILE NAMED <FILE>. IF <FILE> IS OMITTED, THE FILE USED IS THE ONE NAMED WHEN YOU ENTERED NETED. THIS COMMAND RETURNS TO NETED WITH THE WORKING COPY AND POINTER POSITION UNDISTURBED.

WL X <FILE> WRITES THE NEXT X LINES OF THE EDITED FILE TO THE FILE NAMED <FILE>. <FILE> MUST APPEAR, AND THE POSITION OF THE POINTER IS NOT CHANGED.

WTOP <FILE> WRITES ALL LINES FROM THE TOP OF THE FILE DOWN TO THE CURRENT LINE TO THE FILE NAMED <FILE>. THE CURRENT LINE IS NOT INCLUDED, THE POINTER POSITION IS NOT CHANGED, AND THE FILE CONTENTS ARE NOT ALTERED.

SAVE WRITES THE WORKING COPY OF YOUR FILE BACK OVER THE ORIGINAL FILE, AND CAUSES YOUR JOB TO EXIT FROM NETED TO INTERCOM. THE FILE WRITTEN IS REWOUND BOTH BEFORE AND AFTER WRITING. SAVE, W, WL, AND WTOP WILL NOT OVERWRITE ATTACHED PERMANENT FILES.

M <FILE> MERGES THE FILE NAMED <FILE> WITH THE FILE YOU ARE EDITING, BEGINNING AT THE CURRENT POSITION OF THE POINTER. AFTER THIS COMMAND, THE POINTER IS AT THE LAST LINE OF THE FILE <FILE> THAT WAS MERGED.

** TOGGLE SWITCHES **

• THE PERIOD - PUTS YOU INTO INPUT MODE. IF YOU ARE IN INPUT MODE, IT TRANSFERS YOU BACK TO EDIT MODE. THE PERIOD MUST BE IN COLUMN ONE AND BE THE ONLY NON-BLANK CHARACTER IN THE LINE.

V TURNS OFF THE PRINTING OF OPTIONAL RESPONSES. SUBSEQUENT V COMMANDS REVERSE THE EFFECT EACH TIME.

• THE COMMAND '!!' TURNS OFF THE SWITCH THAT CAUSES E> OR I> TO BE PRINTED AT YOUR TERMINAL AS A PROMPT SHOWING THAT NETED IS READY FOR INPUT. SUBSEQUENT '!!' COMMANDS REVERSE THE EFFECT EACH TIME.

NFPOS WHEN A STRING IS NOT FOUND, THE POINTER IS NOT MOVED. THE NFPOS COMMAND WILL CAUSE THE POINTER TO GO TO THE TOP OF THE FILE ON A NOT FOUND CONDITION. SUBSEQUENT 'NFPOS' COMMANDS REVERSE THE EFFECT EACH TIME.

** COMMANDS THAT GIVE INFORMATION **

H -DR- PRINTS A LIST OF NETED COMMANDS.

LN PRINTS THE LINE NUMBER OF THE CURRENT POINTER POSITION.

** COMMANDS WHICH AFFECT THE TERMINAL **

STAR TABCH COL1,COL2,... SETS A TAB CHARACTER FOR USE IN INPUT MODE. TABCH MAY BE ANY CHARACTER EXCEPT A, C, F, R, DEL, CTRL-Y, CTRL-H, CTRL-U, OR BLANK. COL1,COL2,... IS A LIST OF UP TO 10 TAB STOP COLUMNS. THE DEFAULT TAB CHARACTER IS 'I'; THE TAB STOP COLUMN IS 7. (COL1 MAY NOT BE 1.)

** COMMANDS WHICH CAUSE YOU TO EXIT FROM NETED **

QUIT CAUSES IMMEDIATE EXIT FROM NETED TO INTERCOM.
THE EDITED FILE IS NOT REWRITTEN.

SAVE (DESCRIBED ABOVE) ALSO CAUSES AN EXIT FROM NETED.

** COMMANDS THAT MOVE THE POINTER **

THE N OR NEXT COMMAND

N X

THIS COMMAND CAUSES THE POINTER TO BE MOVED DOWN X LINES. THUS, IF YOU WANTED TO SKIP AHEAD 10 LINES, YOU WOULD ENTER

N 10

THE LINE WHERE THE POINTER NOW RESTS IS OPTIONAL PRINTED AT YOUR TERMINAL.

THE N COMMAND ALSO ALLOWS YOU TO BACK UP IN THE FILE BY MOVING THE POINTER UP X LINES BY PUTTING A MINUS SIGN IN FRONT OF THE X. THUS,

N-6

BACKSPACES YOU 6 LINES IN THE FILE.

THE COMMAND N WITH NO PARAMETERS ADVANCES THE POINTER ONE LINE. IF, IN ADVANCING, THE END OF THE FILE IS REACHED, THE MESSAGE

<BOTTOM OF FILE>

IS PRINTED AT YOUR TERMINAL, AND THE POINTER IS LEFT AFTER THE LAST LINE OF THE FILE. IF YOU ARE MOVING UP IN THE FILE BY USING A NEGATIVE PARAMETER AND REACH THE TOP OF THE FILE, NETED RESPONDS

<TOP OF FILE>

AND THE POINTER IS AT THAT POSITION.

ON THE 6600/6700, THE CARRIAGE RETURN COMMAND (ENTERING A LINE CONSISTING ONLY OF A CARRIAGE RETURN) WILL MOVE THE POINTER AHEAD ONE LINE AND ALWAYS PRINT THE LINE. ON THE 6400, USE SPACE CARRIAGE RETURN.

THE L OR LOCATE COMMAND AND
THE LB OR LOCATE BACKWARD COMMANDL <STRING>
LB <STRING>

THE L COMMAND MOVES THE POINTER TO THE NEXT LINE CONTAINING THE CHARACTER STRING <STRING>. <STRING> MAY CONTAIN LEADING AND INTERNAL BLANKS, AND THESE BLANKS WILL BE SIGNIFICANT. (THEREFORE, THE COMMAND 'L A B' WILL NOT LOCATE THE CHARACTER STRING 'AB'.) IT IS SIGNIFICANT THAT TRAILING BLANKS ARE NOT SIGNIFICANT. THUS THE COMMAND 'L A ' MIGHT BE USED WITH THE HOPE OF LOCATING THE WORD 'A'; HOWEVER, IT WOULD TURN UP WORDS OR CHARACTER STRINGS BEGINNING WITH THE LETTER 'A' AS WELL.

SEARCHING BEGINS WITH THE LINE AFTER THE CURRENT ONE AND PROCEEDS UNTIL EITHER A MATCH IS FOUND OR THE END OF THE FILE IS REACHED. IF A MATCH IS FOUND, THE POINTER IS SET ON THE LINE WITH THE MATCHING CHARACTER STRING, AND THE LINE IS OPTIONALLY PRINTED AT YOUR TERMINAL. IF THE END OF THE FILE IS ENCOUNTERED BEFORE A SUCCESSFUL MATCH, THE POINTER IS NOT MOVED AND NETED RESPONDS

NOT FOUND.

IF THE PARAMETER <STRING> IS MISSING OR ALL BLANK, L REMEMBERS THE LAST STRING LOOKED FOR, AND USES IT.

LB IS THE SAME AS L BUT SEARCH STARTS WITH THE LINE BEFORE THE CURRENT LINE AND PROCEEDS TOWARD THE TOP OF THE FILE.

THE F OR FIND COMMAND AND
THE FB OR FIND BACKWARD COMMAND

F <STRING>
FB <STRING>

THE F COMMAND MOVES THE POINTER TO THE NEXT LINE IN THE FILE THAT BEGINS WITH <STRING>. THIS LINE IS OPTIONALLY PRINTED. LEADING BLANKS ARE SIGNIFICANT BOTH IN THE STRING GIVEN IN THE COMMAND AND IN THE LINES SEARCHED. THUS, THE COMMAND 'F DO 5 I=1:20' WOULD NOT LOCATE ANYTHING (UNLESS, FOR SOME REASON YOU HAD A 'DO' STATEMENT THAT BEGAN IN COLUMN ONE). THE F COMMAND WORKS JUST LIKE THE L COMMAND EXCEPT THAT IT ONLY FINDS LINES THAT BEGIN (IN COLUMN ONE) WITH THE GIVEN CHARACTER STRING.

FB IS THE SAME AS F BUT SEARCHES BACKWARDS FROM THE LINE BEFORE THE CURRENT LINE TOWARD THE TOP OF THE FILE.

THE P OR PRINT COMMAND

P X

THIS COMMAND CAUSES THE X LINES INCLUDING AND SUCCEEDING THE CURRENT LINE TO BE PRINTED AT YOUR TERMINAL. THUS,

P 10

PRINTS THE CURRENT LINE AND THE 9 SUCCEEDING LINES. THE POINTER IS MOVED TO THE LAST LINE PRINTED.

THE COMMAND

P

(WITH NO PARAMETER) PRINTS THE CURRENT LINE. THE LINES <TOP OF FILE> AND <BOTTOM OF FILE> ARE PRINTED TO INDICATE THOSE POSITIONS.

IF THE PARAMETER 'X' IS PRECEDED BY A MINUS SIGN, THE POINTER WILL NOT BE MOVED BUT 'X' LINES FORWARD WILL BE PRINTED. FOR EXAMPLE, 'P-S' WILL PRINT THE CURRENT LINE THROUGH THE BOTTOM, BUT WILL LEAVE THE POINTER AT THE CURRENT LINE.

IF THE END OF FILE IS ENCOUNTERED WHILE TRYING TO EXHAUST THE LINE COUNT, THE POINTER WILL MOVE TO THE BOTTOM OF THE FILE AND NETED WILL RESPOND

<BOTTOM OF FILE>

NOTE - THE TOGGLE COMMAND V DOES NOT AFFECT PRINTING RESULTING FROM THE P COMMAND.

THE T OR TOP COMMAND

T

THE T COMMAND MOVES THE POINTER TO THE TOP OF THE FILE. THE POINTER WILL BE POSITIONED SO THAT THE NEXT LINE IS THE FIRST LINE OF YOUR FILE, AND NETED WILL RESPOND

<TOP OF FILE>

WHEN YOU ENTER NETED IN EDIT MODE, YOU ARE AUTOMATICALLY POSITIONED AT THE TOP OF THE FILE.

THE B OR BOTTOM COMMAND

B

THE B COMMAND MOVES THE POINTER TO THE LINE JUST BEFORE THE <BOTTOM OF FILE> POSITION AND OPTIONALLY PRINTS THE LINE. THIS LINE WILL BE THE LAST LINE OF YOUR FILE. IN SOME CASES THIS LINE WILL BE 'EOR' OR 'EOF'. THESE INDICATE END OF LOGICAL RECORD AND END OF LOGICAL FILE, RESPECTIVELY.

SINCE A TRAILING EOR OR EOF IS OFTEN APPENDED TO A FILE AUTOMATICALLY, AND IS NOT REALLY WANTED, NETED WILL AUTOMATICALLY REMOVE ONE TRAILING EOR, ONE TRAILING EOF, OR A TRAILING EOR EOF PAIR. IF MORE RECORD MARKS EXIST AT THE BOTTOM, THEY ARE LEFT THERE.

CERL NETED DIFFERS FROM THE SPECIFICATIONS FOR ARPANET EDITORS IN THE IMPLEMENTATION OF THE B COMMAND. AT OTHER SITES, THE B COMMAND PUTS THE POINTER AT THE <BOTTOM OF FILE> POSITION AND PUTS YOU IN INPUT MODE. THIS WAS CONSIDERED DANGEROUS SINCE AT SKY, THE LAST LINE OF THE FILE MAY BE A RECORD MARK (EOR), IN WHICH CASE LINES INPUT AFTER THE B COMMAND WOULD BE SEPARATED FROM THE REST OF THE FILE BY THE RECORD MARK. IF THE FILE BEING EDITED WERE A FORTRAN SOURCE PROGRAM, FOR EXAMPLE, LINES APPENDED AFTER AN EOR WOULD NOT BE ENCOUNTERED BY THE COMPILER - A LIKELY SOURCE OF CONSTERNATION.

THE <CR> OR CARRIAGE RETURN COMMAND

ON THE 6400/6700, ENTERING A LINE CONSISTING ONLY OF BLANKS OR A CARRIAGE RETURN CAUSES NETED TO MOVE THE POINTER FORWARD ONE LINE AND PRINT IT. ON THE 6400, AT LEAST ONE BLANK IS REQUIRED WITH THE CARRIAGE RETURN.

** COMMANDS THAT ALTER LINES **

THE C OR CHANGE COMMAND AND
THE RC OR REPEAT CHANGE COMMAND

THIS COMMAND TAKES TWO CHARACTER STRINGS AS PARAMETERS; IT
SEARCHES FOR THE FIRST STRING AND, ON FINDING IT, SUBSTITUTES THE
SECOND STRING FOR IT. THE RANGE OF THE SEARCH FOR THE FIRST STRING IS
SPECIFIED BY TWO OPTIONAL PARAMETERS THAT GO AT THE END OF THE
COMMAND - THE LETTER 'G' AND AN INTEGER.

THE INTEGER IS THE NUMBER OF LINES TO BE SEARCHED (AS IN OTHER
NETED COMMANDS). THE 'G', IF PRESENT, MEANS CHANGE ALL OCCURRENCES OF
THE FIRST STRING IN EACH OF THE LINES; IF ABSENT, ONLY THE FIRST
(LEFTMOST) OCCURRENCE OF THE STRING IN EACH LINE IS CHANGED.

A CHARACTER NOT PRESENT IN EITHER STRING IS USED TO INDICATE THE
BEGINNING AND END OF THE TWO STRINGS. THE C COMMAND HAS, THEREFORE,
THE FORM -

C /<STRING1>/<STRING2>/ X G

/ (SLASH) STRING DELIMITER. THE SLASH IS USED IN THE EXAMPLE, BUT
ANY CHARACTER (EXCEPT A BLANK, ETC.) NOT OCCURRING IN
EITHER <STRING1> OR <STRING2> MAY BE USED INSTEAD.

<STRING1> THE CHARACTER STRING THAT IS TO BE REPLACED. ALL BLANKS
IN THIS STRING ARE SIGNIFICANT. IF THIS STRING IS NULL
(ADJACENT DELIMITERS), <STRING2> WILL BE INSERTED AT THE
BEGINNING OF THE LINE.

<STRING2> THE CHARACTER STRING THAT IS TO REPLACE <STRING1>. ALL
BLANKS IN THIS STRING ARE SIGNIFICANT. THIS STRING MAY
BE NULL, IN WHICH CASE <STRING1> IS SIMPLY DELETED.

X THIS IS AN OPTIONAL INTEGER PARAMETER (NO SIZE LIMIT)
SPECIFYING THE NUMBER OF LINES ON WHICH THE COMMAND IS
TO OPERATE. THE C COMMAND WILL AFFECT THE CURRENT LINE
AND THE NEXT X-1 LINES. IF OMITTED, ONLY THE CURRENT
LINE IS AFFECTED.
IF X IS USED, THE POINTER WILL MOVE DOWN X-1 LINES OR TO
THE <BOTTOM OF FILE> POSITION - WHICHEVER IS FIRST. IF
<BOTTOM OF FILE> IS REACHED, NETED WILL RESPOND <BOTTOM
OF FILE>. IF NOT, NETED WILL NOT INDICATE THE CURRENT
POSITION OF THE POINTER (USE THE P COMMAND TO SEE WHERE
YOU ARE).

G FOR GLOBAL. IF THE G IS PRESENT, THE C COMMAND WILL
CHANGE ALL OCCURRENCES OF <STRING1> TO <STRING2> IN ALL
LINES AFFECTED. IF THE G IS NOT USED, ONLY THE FIRST
OCCURRENCE OF <STRING1> IN EACH LINE IS CHANGED.

IF <STRING1> IS NOT FOUND WITHIN THE RANGE OF LINES SPECIFIED BY X,
NETEC RESPONDS

NOTHING CHANGED.

THE C COMMAND WILL PRINT AT YOUR TERMINAL EACH LINE CHANGED (AN OPTIONAL RESPONSE - CONTROLLED BY THE V COMMAND). YOU CAN USE THIS FEATURE TO PRINT ALL THE LINES CONTAINING SOME INTERESTING CHARACTER STRING LIKE THIS

C /STOP/STOP/ \$

(THOUGH THE LINES CONTAINING 'STOP' ARE NOT MADE DIFFERENT, THE C COMMAND THINKS IT CHANGED THEM, SO IT PRINTS THEM.)

ALSO, THE STRING DELIMITER FEATURE MAKES TRAILING BLANKS WITHIN THE STRINGS (NOT THE COMMAND) SIGNIFICANT. AS MENTIONED ABOVE, THE L COMMAND WOULD NOT BE ABLE TO DISTINGUISH BETWEEN THE LETTER 'A' AT THE START OF A WORD AND THE WORD 'A'. YOU COULD USE THE C COMMAND TO LOCATE THE LINES WITH THE WORD 'A' IN THEM LIKE THIS -

C X A Y X X 140

WITH OPTIONAL RESPONSE PRINTING TURNED ON, THIS COMMAND WOULD LIST ALL THE LINES AMONGST THE CURRENT AND NEXT 139 THAT CONTAIN THE WORD 'A'. IT WOULD NOT, HOWEVER, MOVE THE POINTER TO SUCH A LINE. THE POINTER WOULD BE MOVED TO THE <BOTTOM OF FILE> OR TO THE 139TH LINE AFTER THE CURRENT ONE. EACH LINE CONTAINING 'A' WOULD BE PRINTED, THOUGH, AND YOU COULD THEN USE THE T AND L COMMANDS TO MOVE THE POINTER TO ONE OF THE LINES LISTED.

COMMAND FORMAT. THE INTEGER PARAMETER X AND THE G PARAMETER MAY BE SEPARATED FROM THE FINAL STRING DELIMITER AND EACH OTHER BY ANY NUMBER OF BLANKS. EITHER OR BOTH MAY BE OMITTED. THE ORDER OF THESE OPTIONAL PARAMETERS IS IMMATERIAL AS LONG AS THEY ARE AFTER THE LAST STRING DELIMITER. BLANKS ARE IGNORED EXCEPT FOR THE POSSIBLY NEEDED BLANK IN COLUMN TWO (AFTER THE 'C'), AND WITHIN THE TWO STRINGS. AFTER THE THIRD OCCURRENCE OF THE DELIMITER CHARACTER IT IS NO LONGER CONSIDERED SPECIAL - HENCE, THE LETTER G AND DIGITS MAY BE USED AS DELIMITERS.

BEGINNING OF LINE. TO INSERT CHARACTERS AT THE BEGINNING OF THE LINE, <STRING1> SHOULD BE EMPTY: C //<NEW-STUFF>/ .

END OF LINE. TO ENABLE THE CHANGE COMMAND TO OPERATE ON A CHARACTER STRING ONLY WHEN THAT STRING OCCURS AT THE END OF THE LINE, THE C COMMAND WILL 'FIND' AS MANY BLANKS AT THE END OF THE LINE AS IT NEEDS TO IN ORDER TO GET A MATCH. SUPPOSE YOU WANTED TO PUT A PERIOD INSTEAD OF THE COMMA AT THE END OF THIS LINE -

COPYSF,A,CUT,EOI,LR,

THE C COMMAND WOULD BE A PAIN IN THE NECK IF YOU COULDN'T DISTINGUISH THE END OF THE LINE. THE COMMAND-

C /, /./

WILL CHANGE ONLY THE COMMA AT THE END. IT DOES THIS BY LOCATING TRAILING BLANKS IN THE LINE EVEN THOUGH THERE ARE NONE.

IN ADDITION, NETED ALWAYS FINDS A TRAILING BLANK AT THE END OF EVERY LINE. THUS IF YOU CHANGE BLANKS TO \$'S IN THE ABOVE LINE, YOU GET
COPYSF,A,OUT,EOI,LR,
C /\$/G
COPYSF,A,OUT,EOI,LR,S
EVEN THOUGH THERE WAS NOT REALLY A BLANK AT THE END OF THAT LINE.

DELETE ENTIRE LINE. IF YOU USE THE CHANGE COMMAND TO DELETE AN ENTIRE LINE -

C /EOP//10000

THE LINES ARE NOT REALLY ELIMINATED (AS THEY ARE BY THE D COMMAND), BUT REPLACED BY LINES CONSISTING OF TWO BLANKS.

EXAMPLES OF THE C COMMAND

C /BAD/GOOD/	-CHANGE FIRST OCCURRENCE OF CHARACTER STRING 'BAD' TO 'GOOD'
C 2213116	-CHANGE ALL 2'S TO 3'S IN CURRENT LINE
C ** *10	-INSERT 6 BLANKS AT THE BEGINNING OF NEXT 10 LINES
C 'COMMON'COMMON'S	-WILL PRINT (FIRST LINE) OF EACH 'COMMON' STATEMENT FROM THE CURRENT POSITION TO THE BOTTOM
C /Z /X/99996	-CHANGES Z'S TO X'S WHEN THEY OCCUR AT THE END OF LINES (OR FOLLOWED BY MANY BLANKS)
C NO KNOWING	-CHANGE ALL O K'S TO OWI'S
C .THIS.THAT.	-CHANGE THIS TO THAT
C *USELESS STUFF**	-GET RID OF 'USELESS STUFF'
C SFROGSPRINCES	-IT'S A POWERFUL EDITOR

IN SOME CIRCUMSTANCES, YOU MAY USE THE C COMMAND TO SAVE REPEATED TYPING OF COMPLICATED OR LONG STRINGS. TO GIVE AN EXAMPLE, SUPPOSE YOU HAD A LOT OF FORMAT STATEMENTS THAT ONLY HAD MINOR VARIATIONS.

100 FORMAT(1X,*HOW IS THE TIME FOR*,F5.0,*TO COME TO THE AID*)
1C1 FORMAT(1X,*NCW IS THE TIME FOR*,I5,*TO COME TO THE AID*)
ETC,ETC

YOU COULD JUST ENTER (IN INPUT MODE) -

100SF5.0^
101SI5^

ETC., ETC.

THEN DO -

T
C /S/ FORMATTIX,*NOW IS THE TIME FOR*/SG

AND -

T
C /*/,*TO COME TO THE AID*/S G

THE RC COMMAND ALLOWS YOU TO REAPPLY THE LAST CHANGE STRINGS TO THE SAME OR DIFFERENT LINES. 'RC' WILL ONLY WORK ON THE CURRENT LINE. 'G' IS OPTIONAL AND HAS THE SAME MEANING AS FOR 'C'.

BOTH THE C AND PC COMMANDS MAY BE PREFACED BY A ?. WHEN THE ? IS USED NETED WILL PRINT THE CHANGED LINE ON THE TERMINAL AND THEN PROMPT WITH A ??. THE VALID RESPONSES ARE

- Y - DO THE CHANGE
- C - DO THE CHANGE, CONTINUE THE COMMAND WITHOUT QUESTIONING
- N - DO NOT CHANGE, BUT CONTINUE THE COMMAND
- O - ABORT THE COMMAND

THE I OR INSERT COMMAND

I <STRING>

THE I COMMAND INSERTS <STRING> INTO THE FILE AS A NEW LINE AFTER THE CURRENT LINE. THE LINE INSERTED (I.E., <STRING>) BECOMES THE CURRENT LINE. THIS COMMAND GENERATES NO PRINTED RESPONSE.

THE CONTENTS OF COLUMN THREE ON YOUR TELETYPE LINE BECOME THE CONTENTS OF COLUMN ONE OF THE LINE IN THE FILE - I.E., LEADING BLANKS ARE SIGNIFICANT AND THE BLANK AFTER THE COMMAND LETTER IS NOT PART OF <STRING>. INTERNAL BLANKS ARE SIGNIFICANT IN <STRING>. TABS DO NOT WORK IN THE STRING.

THE D OR DELETE COMMAND

D X

THE D COMMAND DELETES THE CURRENT LINE AND X-1 LINES BELOW IT. IF Y IS OMITTED, ONLY THE CURRENT LINE IS DELETED. THE POINTER IS MOVED TO THE LINE THAT WAS JUST ABOVE THE LINE THAT WAS CURRENT WHEN THE D COMMAND WAS ISSUED. IF THE END OF FILE IS ENCOUNTERED, NETED RESPONDS

DELETED TO BOTTOM

IN THIS CASE, THE POINTER IS SET AT THE <BOTTOM OF FILE> POSITION, BUT IN ALL OTHER CASES THE POINTER IS JUST MOVED UP ONE LINE. IF THE PARAMETER Y IS 0 (ZERO), 1, OR OMITTED, THE COMMAND DELETES ONLY THE CURRENT LINE; IF IT IS NEGATIVE, THE ERROR MESSAGE 'ILLEGAL ARGUMENT' IS ISSUED.

CTOP

THE DTOP OR DELETE-TO-POINTER COMMAND

THIS COMMAND (WHICH TAKES NO PARAMETER) DELETES LINES FROM THE FILE BEGINNING AT THE TOP AND STOPPING AT THE LINE BEFORE THE CURRENT LINE. THE CURRENT LINE IS NOT AFFECTED, NOR IS THE POINTER MOVED. THE LINE THAT IS CURRENT WHEN THE COMMAND 'DTOP' IS ISSUED IS THE FIRST LINE IN THE FILE AFTER THE COMMAND HAS BEEN EXECUTED.

R <STRING>

THE R OR REPLACE COMMAND

THE R COMMAND REPLACES THE CURRENT LINE WITH <STRING>. THE POINTER DOES NOT MOVE - IT POINTS TO THE NEW LINE <STRING>. THIS COMMAND GENERATES NO PRINTED RESPONSE. IT WORKS LIKE A D FOLLOWED BY AN I. BLANKS ARE TREATED AS IN THE I COMMAND.

** TOGGLE COMMANDS AND COMMANDS THAT GIVE INFORMATION **

INPUT.

THE CHANGE MODE COMMAND - THE PERIOD

ENTERING A LINE CONSISTING OF JUST A PERIOD CAUSES YOU TO LEAVE EDIT MODE AND ENTER INPUT MODE. THE POINTER IS LEFT WHERE IT WAS. UPON EXECUTION OF THE COMMAND, NETED REPLIES

INPUT.

NOTE THAT THE SAME COMMAND IS USED TO LEAVE INPUT MODE AND GO INTO EDIT MODE. (THIS IS THE ONLY COMMAND THAT NETED WILL ACCEPT WHEN IN INPUT MODE.) NOTE TOO THAT THE CHANGE MODE COMMAND ENTERED FROM EITHER MODE MUST BE A LINE CONSISTING OF SOLELY A PERIOD, THOUGH TRAILING BLANKS WILL BE IGNORED, AS IN ALL COMMANDS. (TO INPUT A LINE CONSISTING OF JUST A PERIOD, YOU MUST USE THE I OR R COMMAND).

V

THE V OR VERIFY COMMAND

THE V COMMAND, WHICH TAKES NO PARAMETERS, ACTS AS A TOGGLE SWITCH ALTERNATELY TO ALLOW AND PREVENT THE PRINTING OF NETED RESPONSES TO OTHER COMMANDS (SPECIFICALLY, THE C, RC, L, F, LB, FS, AND N COMMANDS). THE DEFAULT POSITION IS ON - ALLOWING PRINT. BY ENTERING THE V COMMAND, YOU PREVENT PRINTING AT YOUR TERMINAL OF THE LINES REACHED (OR AFFECTED) BY OTHER COMMANDS. BY ENTERING V AGAIN, YOU TURN PRINTING BACK ON, AND SO ON, BACK AND FORTH.

THE ASTERISK COMMAND - *

THE COMMAND '*' (AS THE ONLY CHARACTER OF THE LINE) REVERSES THE INTERNAL 'SWITCH' GOVERNING THE PRINTING OF E> AND I> AS A PROMPT WHEN NETED IS READY FOR A NEW COMMAND OR LINE OF INPUT.

NFPDS THE NFPDS OR NOT-FOUND POSITIONING COMMAND

THE NFPDS TOGGLE CONTROLS THE POSITION OF THE POINTER AFTER A 'NOT FOUND' CONDITION ON AN L, LB, F OR FB COMMAND. THE DEFAULT POSITION DOES NOT MOVE THE POINTER WHEN THE SEARCH STRING IS NOT FOUND. ENTERING NFPDS WILL CAUSE THE POINTER TO GO TO THE TOP OF THE FILE WHENEVER THE STRING SEARCHED FOR IS NOT FOUND, ETC.

H THE H OR HELP COMMAND
HELP

THE H OR HELP COMMAND CAUSES NETED TO PRINT A LIST OF AVAILABLE COMMANDS WITH A SHORT DESCRIPTION OF EACH.

LN THE LN OR LINE NUMBER COMMAND

THE LN COMMAND PRINTS THE LINE NUMBER OF THE CURRENT LINE. IT ACTUALLY COUNTS LINES FROM THE TOP WHEN IT IS EXECUTED, SO IT MAY USE A BIT OF TIME WHEN EXECUTED FAR INTO A LONG FILE.

** COMMANDS WHICH AFFECT THE TERMINAL **

STAB THE STAB OR SET TAB STOP COMMAND

STAB TABCH COL1,COL2,...,COLN

THE STAB COMMAND SETS A CHARACTER TO BE USED TO INDICATE A TAB OPERATION, AND THE LIST OF TAB STOPS. TABCH MAY BE ANY CHARACTER OTHER THAN BLANK, <CR>, CTRL-X, CTRL-U, CTRL-H, AND DEL. FULL ASCII CHARACTERS MAY BE USED TO INDICATE A TAB, EVEN IF THE FILE IS IN DISPLAY CODE. THERE MAY BE FROM 0 TO 10 TAB STOPS, IN INCREASING ORDER. COL1 MAY NOT BE 1.

** FILE MANIPULATION COMMANDS **

WHEN NETED WRITES A FILE (SAVE, W, WTOP, WL), LINES CONSISTING SOLELY OF 'EOR' OR 'EOF' (IN COLUMNS 1-3) ARE CHANGED INTO END-OF-RECORD AND END-OF-FILE MARKS, RESPECTIVELY. AN END-OF-RECORD IS WRITTEN AFTER THE LAST LINE. THE FILE BEING WRITTEN IS REWOUND BEFORE AND AFTER WRITING, THUS REPLACING ANY PREVIOUS CONTENTS. ATTACHED PERMANENT FILES ARE NEVER OVERWRITTEN.

THE SAVE COMMAND
SAVE
SAVE <FILENAME>

THIS COMMAND WRITES THE WORKING COPY TO THE SPECIFIED FILE. IF <FILENAME> IS OMITTED, THE FILENAME SPECIFIED WHEN ENTERING NETED IS USED, THUS REPLACING THE ORIGINAL CONTENTS.

NETED PRINTS THE MESSAGE-

<FILENAME> WRITTEN.

AND REWINDS THE FILE BEFORE STOPPING.

THE SAVE COMMAND IS INTENDED TO BE USED WHEN YOU ARE FINISHED EDITING THE FILE AND NOW WISH TO DO SOMETHING ELSE - PERHAPS USE OR PERMANENTLY STORE THE FILE. IT IS CUMBROUS AND UNECONOMICAL TO USE THIS WHEN ALL YOU WANT TO DO IS SAVE ON DISK A COPY OF YOUR EDITING TO THAT POINT AND THEN GO ON EDITING. FOR THAT VERY VALID PURPOSE, USE THE W COMMAND.

THE W OR WRITE FILE COMMAND
W
W <FILENAME>

THIS COMMAND CAUSES NETED TO WRITE THE ENTIRE WORKING COPY YOU ARE EDITING TO THE DISK FILE WHOSE NAME IS THE PARAMETER TO THE COMMAND. IF NO PARAMETER IS GIVEN, THE ORIGINAL FILE NAME IS USED (THE FILE NAMED WHEN ENTERING NETED).

THE FILE THUS WRITTEN IS REWOUND FIRST, SO ANY PREVIOUS CONTENTS OF THAT FILE ARE REPLACED. IT IS ALSO REWOUND AFTER. IF THE FILE NAMED IN THE COMMAND IS NOT ONE OF THE FILES CONNECTED TO YOUR JOB, A FILE OF THAT NAME WILL BE CREATED (*PF).

AFTER THIS COMMAND HAS BEEN EXECUTED, YOUR JOB RETURNS TO NETED WITH THE POINTER WHERE IT WAS WHEN YOU GAVE THE COMMAND. NETED WILL RESPOND

<FILENAME> WRITTEN.

USING A NEW FILE NAME IN THE W COMMAND LETS YOU PRESERVE THE ORIGINAL FILE (WITH NO EDITING CHANGES) AS WELL AS THE VERSION EDITED

TO THAT POINT. MOST OF US MAKE MISTAKES NOW AND THEN USING INTERACTIVE EDITORS. IF YOU ARE ONE OF THE CROWD, FREQUENTLY WRITING YOUR EDITED FILE TO A SCRATCH FILE WITH THE W COMMAND MAY SAVE SOME OF THE GRIEF THAT COMES FROM KNOWING YOU WRECKED IT ALL YOURSELF. SUCH SCRATCH FILES ARE, HOWEVER, NOT PROTECTED FROM SYSTEM FAILURES.

THE WTOP OR WRITE-TO-POINTER COMMAND**WTOP <FILENAME>**

THIS COMMAND CAUSES NETED TO WRITE THE LINES FROM THE TOP OF THE FILE DOWN TO BUT NOT INCLUDING THE CURRENT LINE TO THE DISK FILE NAMED AS THE PARAMETER OF THE COMMAND. THE POINTER POSITION IS NOT CHANGED; THE CONTENTS OF THE WORKING COPY BEING EDITED ARE NOT ALTERED. THERE IS NO DEFAULT FILE FOR THE WTOP COMMAND TO WRITE UPON, SO A FILE NAME MUST BE GIVEN AS A PARAMETER.

WHEN NETED HAS EXECUTED THIS COMMAND, IT RESPONDS -

<FILENAME> WRITTEN.

THE VL OR WRITE LINES COMMAND**VL X <FILENAME>**

THIS COMMAND CAUSES NETED TO WRITE X LINES FROM AND INCLUDING THE CURRENT LINE TO THE NAMED FILE. IF X IS ABSENT, ONE LINE IS WRITTEN. AS IN WTOP, THE FILENAME MUST BE SPECIFIED. THIS COMMAND IS USEFUL IN COPYING OR MOVING LINES AROUND IN THE FILE. TO COPY 5 LINES TO ANOTHER SPOT IN THE FILE, YOU COULD ENTER:

F <FIRST LINE TO BE COPIED>
VL 5 TEMP
L <LOCATION AFTER WHICH LINES ARE TO BE INSERTED>
M TEMP

IF MOVING (RE-ARRANGING) LINES, BE SURE TO DELETE THEM FROM THEIR ORIGINAL LOCATION AFTEPWARDS.

THE M OR MERGE COMMAND**M <FILENAME>**

THIS COMMAND CAUSES A COPY OF THE CONTENTS OF THE ALREADY EXISTING FILE NAMED <FILENAME> TO BE INSERTED INTO THE WORKING FILE, BEGINNING IMMEDIATELY AFTER THE CURRENT POINTER POSITION. THE FILE IS REWOUND BEFORE MERGING. THE POINTER WILL BE MOVED TO THE FINAL LINE OF THE INSERTED MATERIAL. UPON EXECUTING THIS COMMAND, NETED RESPONDS '<FILENAME> MERGED.' IF YOU GIVE AN ILLEGAL FILE NAME, NETED RESPONDS 'ILLEGAL FILE NAME.' IF THE FILE IS NOT A DISK FILE OR IF NETED CAN TELL THAT IT IS NOT A TEXT FILE, IT WILL RESPOND 'ILLEGAL FILE TYPE.'

IF YOU GET AN ERROR MESSAGE AFTER A MERGE COMMAND AND CANNOT SEE WHY THE FILE YOU SPECIFY CANNOT BE MERGED, IT IS POSSIBLE THAT THE FILE SPECIFIED IS NOT CONNECTED TO YOUR JOB (PERHAPS YOU MISREMEMBERED OR MISTYED THE NAME). IN SUCH A CASE, THE BEST NEXT STEP IS TO DO 'SAVE' AND THEN EXECUTE THE CONTROL CARD 'FILES'. THIS WILL PRINT AT YOUR TERMINAL A LIST OF THE FILES CONNECTED TO YOUR JOB SO YOU CAN SEE WHAT FILES YOU REALLY HAVE. THE FILE TO BE MERGED MUST BE A NON-EMPTY DISK FILE ATTACHED TO YOUR JOB.

NOTE - THERE WILL PROBABLY BE AT LEAST A RECORD MARK (SHOWN AS CHARACTER STRING 'EOF') AT THE END OF THE FILE YOU MERGE. IN MOST CASES YOU WILL NOT WANT THIS RECORD MARK (OR FILE MARK IF IT IS THERE). THEREFORE, NETED WILL DELETE A SINGLE TRAILING EOF, A SINGLE TRAILING EOF, OR A TRAILING EOF EOF PAIR. IF YOU REALLY WANT A RECORD MARK YOU MUST EITHER INSERT IT OR HAVE EXTRA MARKS AT THE END OF THE MERGE FILE. EVEN SO, WE STRONGLY RECOMMEND THAT YOU USE THE 'P' COMMAND RIGHT AFTER ANY 'M' COMMAND TO SEE WHAT THE LAST LINE MERGED ACTUALLY WAS. IF YOU FIND A RECORD MARK AND DELETE IT, USE THE 'P' AGAIN TO SEE IF THERE ARE YET MORE MARKS BEHIND THAT ONE.

*** COMMANDS THAT TAKE YOU OUT OF NETED ***

THE QUIT COMMAND

QUIT

THE QUIT COMMAND CAUSES IMMEDIATE EXIT FROM NETED - NO WRITING OUT OF FILES OCCURS AS A RESULT OF THIS COMMAND, ALTHOUGH STUFF PREVIOUSLY WRITTEN OUT TO DISK WITH THE V OR SAVE COMMANDS IS NOT AFFECTED.

IF, FOR EXAMPLE, YOU WISH TO ALTER A GIVEN FILE BUT PRESERVE A COPY OF THE ORIGINAL INTACT, YOU WOULD EDIT IT, WRITE THE NEW VERSION OUT UNDER ANOTHER NAME, THEN QUIT. TO CHANGE THE ORIGINAL, ON THE OTHER HAND, YOU WOULD EXIT EITHER BY SAVE OR BY THE SEQUENCE V FOLLOWED BY QUIT.

NOTE - THE REQUIREMENT THAT SAVE AND QUIT BE FULLY SPELLED OUT IS BASED ON A CONCERN THAT THESE TWO PARTICULARLY POWERFUL FUNCTIONS NOT BE INVOKED BY THE ACCIDENTAL MISTYING OF A SINGLE LETTER.

THE SAVE COMMAND AGAIN

SAVE

THE SAVE COMMAND WAS DESCRIBED IN THE PRECEDING SECTION. IT REWRITES THE ORIGINAL FILE WITH THE CURRENT CONTENTS OF THE WORKING COPY YOU WERE EDITING. YOU THEN EXIT FROM NETED AS YOU DO WITH THE QUIT COMMAND.

** NETEDF/NETEDR VS NETED **

NETEDF/NETEDR DIFFER FROM NETED IN THE FOLLOWING AREAS:

- 1) ASCII MODE IS INDICATED BY THE PRESENCE OF ANY SECOND PARAMETER ON THE 'NETEDF' OR 'NETEDR' STATEMENT, NOT JUST 'CH=AS'. THUS, 'NETEDF,LFN,ASCII' OR 'NETEDR,LFN,A' OR WHATEVER, MAY BE USED.
- 2) THE 'PROMPT' MODE HAS BEEN REMOVED. THERE IS NO '**' COMMAND AND NO 'E>' OR 'I>' PROMPTERS.
- 3) THE 'STAB' COMMAND HAS BEEN EXPANDED!

THE STAB OR SET TAB STOP COMMAND

```
STAB TABCH COL1,COL2,...,COLN
STAB TABCH
```

THE STAB COMMAND SETS A CHARACTER TO BE USED TO INDICATE A TAB OPERATION, AND THE LIST OF TAB STOPS. TABCH MAY BE ANY CHARACTER OTHER THAN BLANK, CR, CTRL-X, CTRL-U, CTRL-H, DEL OR UPPER-CASE A, C, F, R. FULL ASCII CHARACTERS MAY BE USED TO INDICATE A TAB EVEN IF THE FILE IS IN DISPLAY CODE. THERE ARE ALWAYS 30 TAB STOPS, IN INCREASING ORDER.

CERTAIN UPPER-CASE LETTERS IN THE TABCH POSITION ARE INTERPRETED AS SHORTHAND FOR PRE-DEFINED TAB SETTINGS AND MAY NOT, THEREFORE, BE USED AS THE TAB CHARACTER:

A (ASSEMBLY)	- 11,18,21,24,27,30,33,36,39,42, 45,48,51,54,57,60,63,66,69,72, 75,78,81,84,87,90,93,96,99,102	
C (COBOL)	- 8,12,16, 20, 24, 28, 32, 36, 40, 44, 48,52,56, 60, 64, 68, 72, 76, 80, 84, 68,92,96,100,104,108,112,116,120,124	
F (FORTRAN)	- 7,10,13,16,19,22,25,28,31,34, 37,40,43,46,49,52,55,58,61,64, 67,70,73,76,79,82,85,88,91,94	DEFAULT FOR NETEDF
R (RATFOR)	- 3, 6, 9,12,15,18,21,24,27,30, 33,36,39,42,45,48,51,54,57,60, 63,66,69,72,75,78,81,84,87,90	DEFAULT FOR NETEDR

IF FEWER THAN 30 TABS ARE SPECIFIED, ADDITIONAL TABS ARE SET EVERY 3 POSITIONS FOLLOWING COLN (UP TO 30 TABS).

- 4) IN ASCII MODE, THE NUMBER OF DELAY CHARACTERS IN THE LINE FEED/ CARRIAGE RETURN SEQUENCE HAS BEEN REDUCED TO SPEED UP TYPING. AS A RESULT, NETED MAY NOT BE USABLE (IN ASCII MODE) ON CERTAIN TERMINALS (SUCH AS THE GE TERMINETS).
- 5) THE TOGGLE COMMAND 'V' ALSO AFFECTS THE PRINTOUT OF THE <TOP OF FILE> AND <BOTTOM OF FILE> MESSAGES.
- 6) THE 'NFPOS' (NOT FOUND POSITION) TOGGLE HAS BEEN REMOVED.
- 7) USE 'ATTACH,NETEDF' OR 'ATTACH,NETEDR' FOR THE DESIRED VERSION.

THE FOLLOWING SUMMARIZES VERSION 1.2 OF NETED/NETEDF/NETEDR ON THE
CDC 6000:

ADDITIONS:

- 1) A <STRING>
APPEND <STRING> TO THE CURRENT LINE.
- 2) DUP X
DUPLICATE THE CURRENT LINE X TIMES. IF X IS PRECEDED BY A
MINUS SIGN, THE POINTER IS NOT MOVED.
- 3) FA <STRING>
FBA <STRING>
LA <STRING>
LBA <STRING>
SIMILAR TO F/FB/L/LB. LIST ALL LINES BEGINNING WITH
<STRING> (FA/FBA) OR CONTAINING <STRING> (LA/LBA) FROM THE
CURRENT LINE TO THE END OF THE WORKFILE. THE POINTER IS
NOT MOVED.
- 4) PD X
PRINT X LINES, BEGINNING WITH THE CURRENT LINE, DOUBLE
SPACED. IF X IS PRECEDED BY A MINUS SIGN, THE POINTER IS
NOT MOVED.
- 5) UC X G
UNDO THE LAST CHANGE IN THE NEXT X LINES, BEGINNING WITH
CURRENT LINE. THIS COMMAND IS SHORTHAND FOR
C /<STRING1>/<STRING2>/ X G
THE <STRINGS> ARE FLIPPED FOR THE DURATION OF THE COMMAND.
IF X IS PRECEDED BY A MINUS SIGN, THE POINTER IS NOT MOVED.
IF G IS SPECIFIED, THE CHANGE IS GLOBAL (EACH OCCURRENCE
IN EACH OF THE X LINES).
- 6) Y N
PRINT A LINE OF N COLUMN MARKERS. FOR EXAMPLE:
Y 37
PRINTS
....9...10...15...20...25...30...35..
N OMITTED IMPLIES N=72
N=0 IMPLIES N=1
N>140 IMPLIES N=140

CHANGES:

- 1) C /<STRING1>/<STRING2>/ X G
IF X IS PRECEDED BY A MINUS SIGN, THE POINTER IS NOT
MOVED.
- 2) RC X G
REPEAT THE LAST CHANGE FOR THE NEXT X LINES, BEGINNING
WITH THE CURRENT LINE. IF X IS PRECEDED BY A MINUS SIGN,
THE POINTER IS NOT MOVED.

DELETIONS:

- 1) THE NEPOS TOGGLE HAS BEEN REMOVED.

REMARKS:

- 1) NETEC, NETECF AND NETEDR NOW DIFFER ONLY IN THE FOLLOWING TWO FEATURES:

	NETED	NETEDF	NETEDR
INITIAL E> I>	ON	OFF	OFF
PROMPTING (CONTROLLED BY * TOGGLE)			
TABS	ONE TAB AT COL 7.	30 TABS FOR FORTRAN AT 7,10,13,..., 30,6,9,...,90 94	30 TABS FOR RATFOR AT 7,10,13,..., 30,6,9,...,90
	ONLY DEFINED TABS ARE SET.	30 TABS ARE ALWAYS SET. TABS ARE SET EVERY 3 COLUMNS AFTER THE LAST USER-DEFINED TAB, IF NECESSARY.	

FUTURE VERSIONS:

- 1) NETED, NETEDF AND NETEDR ARE CURRENTLY THREE SEPARATE PROGRAMS. FUTURE VERSION 2.0 WILL MERGE THESE INTO A SINGLE PROGRAM AND USE THE SECOND PARAMETER ON THE EXECUTE CARD TO PRESERVE THE TABS, PROMPTING AND MODE (DISPLAY CODE/ASCII). THIS PARAMETER WILL ALSO ALLOW FOR COBOL, PASCAL, COMPASS, AND NO TABS SETTINGS.

THE NETED MANUAL:

- 1) "THE CDC NETED REFERENCE MANUAL" IS BEING REWRITTEN IN A DIFFERENT FORMAT AND IS EXPECTED TO BE PUBLISHED EARLY NEXT YEAR. IT WILL HAVE THE SAME FORMAT AS "THE BURROUGHS NETED REFERENCE MANUAL" WHICH SHOULD BE PUBLISHED AT ABOUT THE SAME TIME.
- 2) THIS SUPPLEMENT HAS BEEN ADDED TO THE END OF THE CURRENT NETED MANUAL. IT IS NOT NECESSARY TO REPRINT THE ENTIRE MANUAL AT THIS TIME.

THE FOLLOWING SUMMARIZES VERSIONS 1.3 AND 1.4 OF NETED/NETEDF/
NETEDR ON THE CDC 6000:

ADDITIONS:

- 1) - (A MINUS SIGN)
MOVE BACKWARD ONE LINE (SHORTHAND FOR IN -1).
- 2) AL <STRING>
ADD <STRING> AT THE LEFT OF THE CURRENT LINE.
(SHORTHAND FOR C//<STRING>/)
- 3) AR <STRING>
ADD <STRING> AT THE RIGHT OF THE CURRENT LINE.
(SAME AS A)
- 4) PA
PRINT ALL LINES. <TOP OF FILE> AND <BOTTOM OF FILE> ARE
NOT PRINTED. THE POSITION OF THE POINTER IS NOT ALTERED
BY THIS COMMAND.
- 5) PDA
PRINT ALL LINES DOUBLE-SPACED. <TOP OF FILE> AND <BOTTOM
OF FILE> ARE NOT PRINTED. THE POSITION OF THE POINTER IS
NOT ALTERED BY THIS COMMAND.
- 6) PA X
PRINT THE CURRENT LINE AND X LINES ON EITHER SIDE OF IT.
(X IS POSITIVE AND <= 9)
- 7) STR
LIST THE MOST RECENT DEFINITIONS OF THE 5 REMEMBERED
STRINGS FOR THE FOLLOWING COMMANDS: A/AR, AL, C (2
STRINGS), F/FA/FB/FBA/L/LA/LB/LBA.
- 8) TI
LIST THE ELAPSED WALL CLOCK, CP AND IO TIMES.
- 9) TL X
TRUNCATE X COLUMNS FROM THE LEFT OF THE CURRENT LINE.
- 10) TR X
TRUNCATE X COLUMNS FROM THE RIGHT OF THE CURRENT LINE.
- 11) WHAT
LIST THE FOLLOWING INFORMATION ABOUT THE NETED WORKFILE:
- NETED FILE NAME (FLAGGED WITH * IF A PERMANENT FILE)
- FILE KIND ('ASCII' IF IT IS AN ASCII FILE)
- LINE LENGTH (AT THIS LEVEL OF NETED, ALWAYS 140)
- NUMBER OF LINES IN THE WORKFILE
- A LIST OF THE TOGGLS WHICH ARE SET
- THE CURRENT VALUES OF LM, RM, IN AND THE MARGIN WIDTH

12) EIGHT WORD PROCESSING-RELATED COMMANDS:

- 1) CENTER X
CENTER THE NEXT X LINES WITHIN LM-RM MARGINS.
- 2) IN X
SET THE PARAGRAPH INDENTATION FOR X COLUMNS.
(THIS SETTING WILL BE USED BY A FUTURE OPTION.)
- 3) LEFT X
LEFT-JUSTIFY THE NEXT X LINES WITHIN LM-RM MARGINS.
- 4) LEN X
LIST THE LENGTHS OF EACH OF THE NEXT X LINES.
- 5) LM X
SET THE LEFT MARGIN AT COLUMN X.
- 6) LPL X
LIST PAGE LENGTHS OF THE DOCUMENT IN THE WORKFILE.
FLAG ALL PAGES > X LINES LONG. PRINT A SUMMARY.
CARriage CONTROL CHARACTERS OTHER THAN '1', ' ', '+',
'0', '---', 'S', AND 'T' ARE TOTLED BUT IGNORED FOR LINE
COUNTS. THE POSITION OF THE POINTER IS NOT ALTERED BY
THIS COMMAND.
- 7) RIGHT X
RIGHT-JUSTIFY THE NEXT X LINES WITHIN LM-RM MARGINS.
- 8) RM X
SET THE RIGHT MARGIN AT COLUMN X.

13) IF THE 'V' TOGGLE IS SET, NETED WILL PRINT A TIME SUMMARY BEFORE TERMINATING.

CHANGES:

- 1) X
X WITHOUT AN ARGUMENT WILL PRINT 72 COLUMN MARKERS.
X WITH A NEGATIVE ARGUMENT IS NOW INVALID.
- 2) HELP
THE HELP LISTING HAS BEEN MODIFIED TO GROUP THE TOGGLES TOGETHER.

CORRECTIONS:

- 1) <CP> AND - WILL NOT PRINT THE LINE IF VERIFY IS RESET.
- 2) EOP/EOF PROCESSING IN ASCII MODE HAS BEEN CORRECTED.
- 3) 'DUP S' HAS BEEN DISALLOWED.

DELETIONS:

NONE

REMARKS:

NONE

FUTURE VERSIONS:

- 1) NETED, NETEDF AND NETEDR ARE CURRENTLY THREE SEPARATE PROGRAMS. FUTURE VERSION 2.0 WILL MERGE THESE INTO A SINGLE PROGRAM AND USE THE SECOND PARAMETER ON THE EXECUTE CARD TO PRESET THE TABS, PROMPTING AND MODE (DISPLAY CODE OR ASCII). THIS PARAMETER WILL ALSO ALLOW FOR COBOL, PASCAL, COMPASS, AND NO TABS SETTINGS.

THE NETED MANUAL:

- 1) THIS SUPPLEMENT HAS BEEN ADDED TO THE END OF THE CURRENT NETED MANUAL. IT IS NOT NECESSARY TO REPRINT THE ENTIRE MANUAL AT THIS TIME.
- 2) "THE CDC NETED REFERENCE MANUAL" IS BEING REWRITTEN IN A DIFFERENT FORMAT AND IS EXPECTED TO BE PUBLISHED LATER THIS YEAR. IT WILL HAVE THE SAME FORMAT AS "THE BURROUGHS NETED REFERENCE MANUAL".

***** CAEFINC 0001211 LINES PR /43
***** CAEFINC 0001211 LINES PR /43

INITIAL DISTRIBUTION

Copies

2 CONR/Code 226/LCDR R. Cooper

6 NAVSUP

3 SUP 0622

3 PML 5505

3 SPCC/0302

2 Naval Air Station, Pensacola
Code 195/LCDR R.L. Witwer

2 Norfolk Naval Shipyard
Code 452/R. Murden

2 Naval Supply Center, Charleston
Code 407/R. Farley

2 Naval Station, Washington
Code 11/C.O. Flynn

2 Naval Air Station, Cecil Field
Code 18A00/B.G. Gamble

2 Naval Station, Roosevelt Roads
Code 186/CWO Shelton

10 DTIC

CENTER DISTRIBUTION

Copies Code Name

1 18 C. Schoman

1 1808s

1 187 M. Zubkoff

5 1872 P. Price

2 1872 J. Chesley

10 1872 P. Friedenberg

2 4224 W. Robinson

10 5211.1 Reports Control

1 522.1 TIC (C)

1 522.2 TIC (A)

1 93 L. Marsh

E N D

DAT F

FILMED

8 - 88

OTIC